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AEROS Manual Series. Volume III
Summary and Retrieval Manual. Update Number 2

(U.S.) Environmental Protection Agency
Research Triangle Park, NC

Apr 79

U.S. Department of Commerce
National Technical Information Service
NTIS

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16. ABSTRACT

The AEROS Summary and Retrieval Manual(Vol.III) describes the reporting and analysis capabilities of the various AEROS systems. The reports available from each of the major systems are described and their retrieval options are explained. Sample computer printouts are used to illustrate the report formats.

This manual also describes the analysis packages available for use in the evaluation ofAEROS data and describes the user access procedures for obtaining AEROS reports. It describes the standard publications available from the NADB to provide information on emissions and qir quality.

It also provides specific examples of applications of AEROS data and the use of AEROS reports in typical air quality control activities. The manual also gives an overview of the Comprehensive Data Handling System(CDHS), which is an AEROS-related system for storing and reporting air quality and emissions data.

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AEROS MANUAL SERIES
VOLUME III:
SUMMARY AND RETRIEVAL MANUAL

UPDATE
Number
2

REPRODUCED BY
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This Update Notice concerns the enclosed replacement pages for Volume III of the AEROS Manual Series. Please remove and insert pages as listed below.

REMOVE	INSERT	COMMENTS
1. V to XIV	V to XIV	Contents revised to reflect Update
2.	0.2.0-3 to 0.2.0-5	Update Notice III-2
3. 2.1.0-7 to 2.1.0-8	2.1.0-7 to 2.1.0-8	Revised Summary of NEDS Retrievals Table
4. 2.1.1-7 to 2.1.1-17	2.1.1-7 to 2.1.1-25	Revised to include new area source report
5. 2.1.2-1 to 2.1.2-27	2.1.2-1 to 2.1.2-22	Revised to delete obsolete reports, show new report examples
6. 2.3.0-1 to 2.3.0-2	2.3.0-1 to 2.3.0-2	Revised to include new report capability
7. 2.3.0-7	2.3.0-7	Revised to include new report capability
8. 2.3.1-1 to 2.3.1-2	2.3.1-1 to 2.3.1-2	Revised to include new example report
9. 2.3.1-5 to 2.3.1-12	2.3.1-5 to 2.3.1-12	Revised to reflect new selection capabilities.
10. 2.3.1-21	2.3.1-21 to 2.3.1-27	Addition of new SAROAD reports
11. 2.3.2-3 to 2.3.2-4	2.3.2-3 to 2.3.2-4	Revised to reflect new report format
12. 2.3.2-7 to 2.3.2-20	2.3.2-7 to 2.3.2-17	Revised to remove discontinued reports and document new reports

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Volume III Updates	**SECTION** 0	**CHAPTER** 2	**SUBJECT** 0
NATIONAL AIR DATA BRANCH	**CHAPTER** Update Notices	**DATE** 3/1/79	**PAGE** 4	
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT** Update III-2			

	REMOVE	INSERT	COMMENTS
13.	2.4.1-1 to 2.4.1-25	2.4.0-1	Revised to reflect discontinuation of responses for Air Quality Assurance handling Data
14.		2.5.1-1 to 2.5.2-4	Additions to Hazardous and Trace Emissions System (HATREMS) Chapter
15.	2.7.0-1	2.7.0-1	Revised to delete discontinued reports
16.	2.10.0-1	2.10.0-1	Revised to remove discontinued report
17.	2.10.2-1 to 2.10.2-3	2.10.2-1	Revised to delete discontinued reports
18.	3.0.0-1 to 3.5.0-1	3.0.0-1	Revised to delete discontinued reports
19.	4.2.2-1 to 4.2.2-115	4.2.2-1 to 4.2.2-76	Revised to include new capabilities
20.		4.2.3-1 to 4.2.3-114	New Chapter on NEDS Terminal System
21.	5.2.0-1	5.2.0-1	Revised to document new publication procedures
22.	5.2.1-1 to 5.2.1-6	5.2.1-1 to 5.2.1-5	Revised to document new publication procedures
23.	5.2.2-1 to 5.2.2-4	5.2.2-1 to 5.2.2-3	Revised to document new publication procedures

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24.	5.2.3-1 to 5.2.3-3	5.2.3-1 to 5.2.3-3	Revised to document new publication procedures
25.	6.3.0-1	6.3.0-1	Revised to reflect discontinuation of responses for Air Quality Assurance handling Data
26.	7.2.3-1 to 7.2.3-66	7.2.3-1 to 7.2.3-35	Revised to document new file formats

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UPDATE SUMMARY

Volume III

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III-2	3/1/79

NOTE: All changes are routine

When you have made the changes indicated in this Notice, initial the Notice and insert it in Chapter 0.2.0 of Volume III as a record of the Updates received and filed.

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LIST OF ABBREVIATIONS

AEROS	Aerometric and Emission Reporting System
AQDM	Air Quality Display Model
AQCR	Air Quality Control Region
AQDHS-II	Air Quality Data Handling Subsystem-II
ATS	AEROS Terminal System
CAASE	Computer-Assisted Area Source Emissions
CDHS	Comprehensive Data Handling System
CDM	Comprehensive Data Management
EIS/P&R	Emissions Inventory Subsystem/Permit and Registration
EMS	Enforcement Management Subsystem
FMVECP	Federal Motor Vehicle Emissions Control Program
FPC	Federal Power Commission
GMT	Greenwich Mean Time
HATREMS	Hazardous and Trace Emissions System
IPP	Implementation Planning Program
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standard
NADB	National Air Data Branch
NCC	National Computer Center
NEDS	National Emissions Data System
NER	National Emissions Report
NTS	NEDS Terminal System
OGC	Office of General Counsel
QCI	Quality Control Index
QAMIS	Quality Assurance Management Information System
REPS	Regional Emissions Projection System
SAROAD	Storage and Retrieval of Aerometric Data
SDS	Systems Development Section
SCC	Source Classification Code
SEAS	Strategic Environmental Assessment System
SIC	Standard Industrial Classification Code
SIEFA	Source Inventory Emission Factor Analysis
SIP	State Implementation Plan
SMSA	Standard Metropolitan Statistical Area
SOTDAT	Source Test Data System
STS	SAROAD Terminal System
TCP	Transportation Control Plan
UTM	Universal Transverse Mercator
WSAP	Weighted Sensitivity Analysis Program

ABSTRACT

The AEROS Summary and Retrieval Manual, Volume III of the OAQPS Guidelines Manual Series, describes and illustrates the reporting and analysis capabilities of the various AEROS systems. The reports available from each of the major systems are described and their retrieval options are explained. Sample computer printouts are used to illustrate the report formats.

This manual also describes the analysis packages available for use in the evaluation of AEROS data and describes the user access procedures for obtaining AEROS reports. It describes the standard publications available from the NADB to provide quarterly or annual information on emissions and air quality.

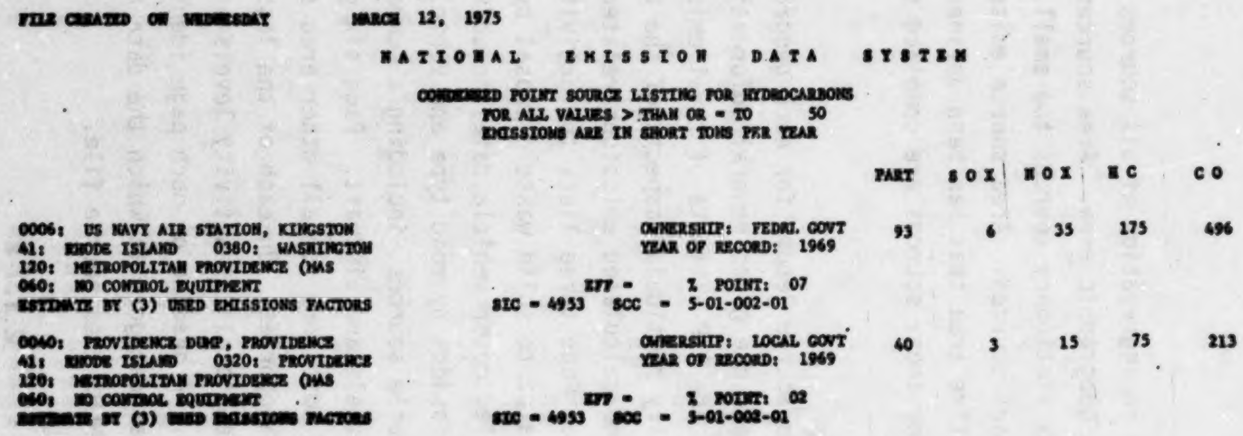
In an applications section, the manual provides specific examples of applications of AEROS data. The use of AEROS reports in typical air quality control activities is described.

The manual also gives an overview of the Comprehensive Data Handling System (CDHS), which is an AEROS-related system for storing and reporting air quality and emissions data.

Table 2.1.0.a summarizes the retrieval options available for each NEDS report described in this chapter.

Table 2.1.0.a. SUMMARY OF NEDS RETRIEVALS

Report	Nation	State	EPA Region	AQCR	State Portions of Interstate AQCR's	County	Plant Number	Point Number	Source Classification Code	Ownership	Standard Industrial Classification Code	Emission Estimation Method	Sources Emitting More Than X Tons of Any One Pollutant	Years of Record for AQ Data	Valid Combination of Items
Raw Data Reports															
Point Source Report	x	x		x		x	x	x	x	x	x	x	x		x
Condensed Point Source Report	x	x		x		x	x	x	x	x	x	x	x		x
Area Source Report	x	x		x	x	x									x
Allowed Versus Computed Emissions Report	x	x				x	x	x							x
Point Source Cards	x	x		x		x	x	x	x	x	x	x	x		x
Area Source Cards	x	x				x									x
Summary Reports															
Emission Summary Report	x	x	x	x	x	x									
Annual Fuel Summary Report	x	x		x		x									
Plant Emission Summary Report	x	x		x		x									
SCC Emissions Report	x														
Plant Name Report	x	x		x		x	x	x	x	x	x	x	x		x
Emissions by SCC Report	x	x		x		x	x	x	x	x	x	x	x		x
Potential Emissions Report	x	x		x		x	x	x	x	x	x	x	x		x
Management Reports															
Plant-Point-SCC Count Report	x														
Missing Item Report	x	x		x		x	x	x	x	x	x	x	x		x
Highest Plant Number of County Report		x													



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FILE CREATED ON WEDNESDAY        MARCH 12, 1975

                          N A T I O N A L    E M I S S I O N    D A T A    S Y S T E M

                               CONDENSED POINT SOURCE LISTING FOR HYDROCARBONS
                                     FOR ALL VALUES > THAN OR = TO      50
                                     EMISSIONS ARE IN SHORT TONS PER YEAR

                                                                            PART   S O X | N O X   H C     C O

0006:  US NAVY AIR STATION, KINGSTON                       OWNERSHIP:  FEDRL GOVT    93      6     35     175     496
41:  RHODE ISLAND     0380:  WASHINGTON                    YEAR OF RECORD:  1969
120:  METROPOLITAN PROVIDENCE (MAS
060:  NO CONTROL EQUIPMENT                          EFF =      % POINT:  07
ESTIMATE BY (3) USED EMISSIONS FACTORS         SIC = 4953   SCC  =  5-01-002-01

0040:  PROVIDENCE DUMP, PROVIDENCE                         OWNERSHIP:  LOCAL GOVT    40      3     15      75     213
41:  RHODE ISLAND     0320:  PROVIDENCE                    YEAR OF RECORD:  1969
120:  METROPOLITAN PROVIDENCE (MAS
060;  NO CONTROL EQUIPMENT                          EFF =      % POINT:  02
ESTIMATE BY (3) USED EMISSIONS FACTORS         SIC = 4953   SCC  =  5-01-002-01
```

Figure 2.1.1.b. Condensed Point Source Report

AREA SOURCE REPORT

General Description

Area sources are an aggregation of all sources not defined as point sources in a specific geographic area. Area sources usually included all mobile sources and any stationary sources too small, difficult, or numerous to classify as point sources. Area source emissions are assumed to be spread over the entire area that has been defined as an area source. Activity level data for these sources are compiled on a countywide basis for NEDS.

The complete Area Source Report for each geographic area occupies six printed pages. Page one gives general information: the total calculated emissions, the SIP estimate of total emissions, and comments which explain or amplify particular aspects of the data. Page two lists the activity levels and calculated emissions related to fuel consumption by stationary sources. Page three lists the activity levels and calculated emissions related to solid waste disposal by stationary sources. Page four gives detailed motor vehicle data including vehicle miles, fuel use and calculated emissions by road type and vehicle type. Page five lists data for all mobile sources, including a summary of motor vehicle data plus data for vessels and aircraft. Page six gives the activity levels and calculated emissions for all other area sources which do not fall into the above categories. On each of the last five pages, the appropriate totals and subtotals of activity levels and calculated emissions are also listed. A heading on each page identifies the geographic area, year, and general category to which the data apply and the file creation date of the NEDS area source file.

Retrievals Available

Retrieval options are available for:

a. The geographic area for which data are to be reported.
b. Which of the report pages are to be printed.
c. The level of detail of the report (summary or detail).

The following types of geographic data retrievals are possible:

1) national:	all data for the entire nation
2) state:	all data for one state
3) AQCR:	all data from one AQCR
4) state/AQCR:	all data for the portion of a state within one AQCR
5) state/county:	the data for one county
6) state/county/AQCR:	the data for that portion of a county within one AQCR.

In nearly all instances the state/county and state/county/AQCR data retrievals are identical, since most counties are wholly within one AQCR. Only in those instances where portions of one county are within different AQCR's could there be a difference.

The Area Source Emissions Report which is produced from selected data may be either detailed or a summary. The "detailed" report lists the data for each selected county record plus a total of all selected data. The "summary" report lists only the total. The following table lists the types of totals obtained for each of the geographic selection types.

Geographic Selection	Totals produced in Emissions Report
National - by state	State, national
National - by AQCR	AQCR, national
State	State
AQCR	AQCR
State/AQCR	State/AQCR
State/county	none
State/county/AQCR	none

For example, if a "summary" report for the nation, by state, were requested a national total and each state total would be produced. A "detailed" report for the nation, by state, would produce a national total report, totals for each state and reports for each of the more than 3100 counties in the nation. If a "summary" report for an AQCR were requested, only a summary total for the AQCR would be printed. A "detailed" report for an AQCR would produce a summary total for the AQCR and reports for each county in the AQCR.

The final user option exercised pertains to which of the six pages of the Area Source Report are printed. Each page may be selectively included or excluded. This capability allows the user to obtain only those data of interest in a report and exclude extraneous information. Thus, a report with all six pages or only pages 1 and 4, for example, for each selected area may be obtained. Pages are printed in any selected order.

Sorts Available

No sorts are performed. Data are reported in the same order as they are stored in the area source file, that is, in ascending state/county/AQCR codes. When selection is by AQCR, data are reported in ascending state/county order within each AQCR selected.

Sample Report

Figure 2.1.1.c is a sample area source report "summary" for the State of Delaware. Detailed reports for each county are in the same format.

```
02-16-79                    NATIONAL EMISSIONS DATA SYSTEM                                    PAGE 0001-1
          AREA SOURCE EMISSIONS REPORT FOR YEAR 1975             DATA FILE LAST UPDATED ON OCTOBER 26, 1977
                                        TOTAL FOR STATE(08): DELAWARE

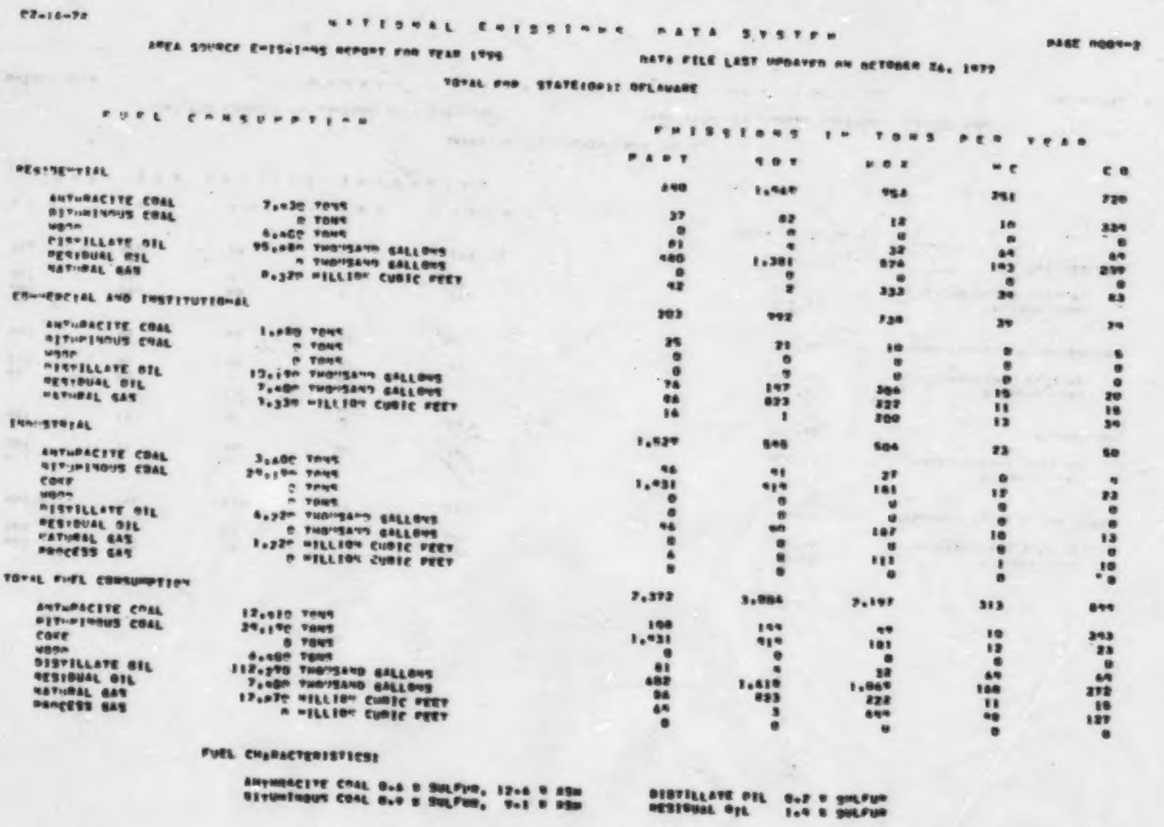
     GENERAL                                               EMISSIONS IN TONS PER YEAR
                                                     PART       SOX        NOX        HC         CO
TOTAL AREA SOURCE EMISSIONS

   SIP ESTIMATE (1972)                               1,200      2,600      17,400     53,800     256,900
   COMPUTED EMISSIONS (1975)                         6,349      4,416      33,293     61,923     239,097

   RATIO OF SIP ESTIMATE TO COMPUTED EMISSIONS       0.189      0.592      0.527      0.870      1.070

AVERAGE URBAN POPULATION: 40 TO 49 PERCENT
```

Figure 2.1.1.c NEDS Area Source Report



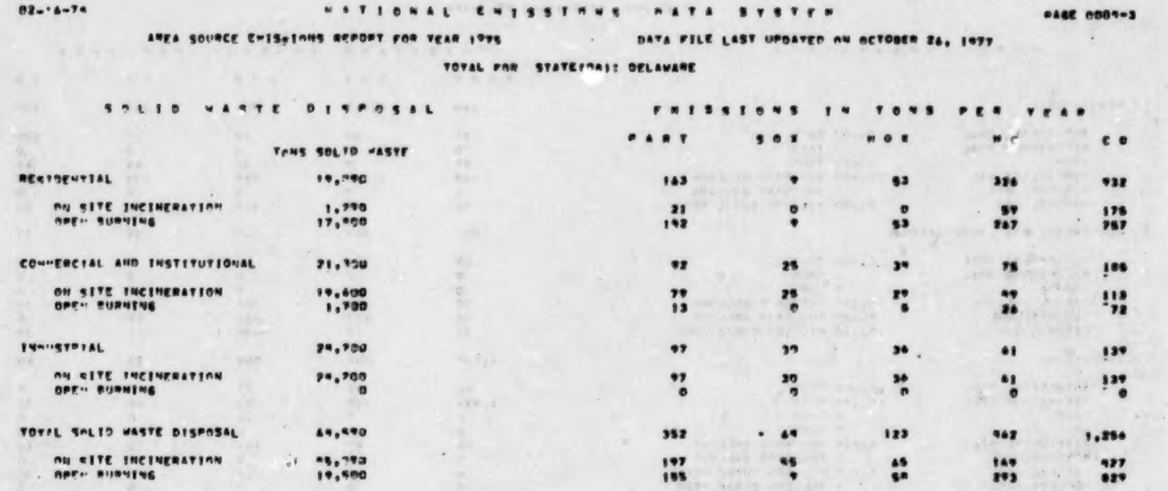
```
02-16-78
                         N A T I O N A L   E M I S S I O N S   D A T A   S Y S T E M                                         PAGE 0004-2
             AREA SOURCE EMISSIONS REPORT FOR YEAR 1975                  DATA FILE LAST UPDATED ON OCTOBER 26, 1977
                                                    TOTAL FOR  STATE(08): DELAWARE

      F U E L   C O N S U M P T I O N
                                                                  E M I S S I O N S   I N   T O N S   P E R   Y E A R
                                                                  PART       SOX        NOX         HC          CO
RESIDENTIAL
                                                                   490      1,549       954        251         720
    ANTHRACITE COAL          7,030 TONS
    BITUMINOUS COAL              0 TONS                             37         82        12         10         339
    WOOD                     6,400 TONS                              0          0         0          0           0
    DISTILLATE OIL          95,680 THOUSAND GALLONS                 81          4        32         69          69
    RESIDUAL OIL                 0 THOUSAND GALLONS                480      1,381       874        193         299
    NATURAL GAS              9,320 MILLION CUBIC FEET                0          0         0          0           0
                                                                    42          2       332         30          83
COMMERCIAL AND INSTITUTIONAL
                                                                   303        992       730         39          34
    ANTHRACITE COAL          1,680 TONS
    BITUMINOUS COAL              0 TONS                             25         21        10          0           5
    WOOD                         0 TONS                              0          0         0          0           0
    DISTILLATE OIL          13,190 THOUSAND GALLONS                  0          7         0          0           0
    RESIDUAL OIL             7,400 THOUSAND GALLONS                 74        147       306         15          20
    NATURAL GAS              3,330 MILLION CUBIC FEET               86        823       222         11          10
                                                                    16          1       200         13          39
INDUSTRIAL
                                                                 1,529        598       504         23          50
    ANTHRACITE COAL          3,400 TONS
    BITUMINOUS COAL         29,190 TONS                             46         41        27          0           4
    COKE                         0 TONS                          1,431        519       161         12          23
    WOOD                         0 TONS                              0          0         0          0           0
    DISTILLATE OIL           4,220 THOUSAND GALLONS                  0          0         0          0           0
    RESIDUAL OIL                 0 THOUSAND GALLONS                 46         40       107         10          13
    NATURAL GAS              1,220 MILLION CUBIC FEET                0          0         0          0           0
    PROCESS GAS                  0 MILLION CUBIC FEET                4          0       111          1          10
                                                                     0          0         0          0           0
TOTAL FUEL CONSUMPTION
                                                                 2,372      3,084     2,197        313         899
    ANTHRACITE COAL         12,910 TONS
    BITUMINOUS COAL         29,190 TONS                            108        144        49         10         393
    COKE                         0 TONS                          1,431        519       101         12          23
    WOOD                     6,400 TONS                              0          0         0          0           0
    DISTILLATE OIL         112,290 THOUSAND GALLONS                 81          4        32         69          69
    RESIDUAL OIL             7,400 THOUSAND GALLONS                482      1,618     1,069        108         272
    NATURAL GAS             17,870 MILLION CUBIC FEET               86        823       222         11          10
    PROCESS GAS                  0 MILLION CUBIC FEET               65          3       699         49         127
                                                                     0          0         0          0           0

                       FUEL CHARACTERISTICS:

                            ANTHRACITE COAL 0.6 % SULFUR, 12.6 % ASH        DISTILLATE OIL  0.2 % SULFUR
                            BITUMINOUS COAL 0.9 % SULFUR,  9.1 % ASH        RESIDUAL OIL    1.4 % SULFUR
```

Figure 2.1.1.c NEDS Area Source Report (continued)



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02-16-79                N A T I O N A L   E M I S S I O N S   D A T A   S Y S T E M                   PAGE 0009-3
            AREA SOURCE EMISSIONS REPORT FOR YEAR 1975          DATA FILE LAST UPDATED ON OCTOBER 26, 1977
                                            TOTAL FOR  STATE(DA): DELAWARE

       S O L I D   W A S T E   D I S P O S A L              E M I S S I O N S   I N   T O N S   P E R   Y E A R
                                                          P A R T       S O X        N O X          H C          C O
                             TONS SOLID WASTE
RESIDENTIAL                        19,090                    163           9           53          326          932

    ON SITE INCINERATION            1,290                     21           0            0           59          175
    OPEN BURNING                   17,800                    142           9           53          267          757

COMMERCIAL AND INSTITUTIONAL       21,300                     92          25           34           75          185

    ON SITE INCINERATION           19,600                     79          25           29           49          113
    OPEN BURNING                    1,700                     13           0            5           26           72

INDUSTRIAL                         28,700                     97          30           36           41          139

    ON SITE INCINERATION           28,700                     97          30           36           41          139
    OPEN BURNING                        0                      0           0            0            0            0

TOTAL SOLID WASTE DISPOSAL         69,090                    352          64          123          442        1,256

    ON SITE INCINERATION           49,590                    197          55           65          149          427
    OPEN BURNING                   19,500                    155           9           58          293          829
```

Figure 2.1.1.c NEDS Area Source Report (continued)

```
02-16-78                         NATIONAL EMISSIONS DATA SYSTEM                                          PAGE 00099
                AREA SOURCE EMISSIONS REPORT FOR YEAR 1975            DATA FILE LAST UPDATED ON OCTOBER 26, 1977
                                            TOTAL FOR  STATE(08): DELAWARE

      MOTOR  VEHICLES                                                  EMISSIONS  IN  TONS  PER  YEAR
                                                                  PART        SOX        NOX         HC          CO
                                                  MEASURED
                                     GALLONS FUEL  VEHICLE MILES
                                     (THOUSANDS)   (THOUSANDS)
GASOLINE POWERED VEHICLES              293,966                    2,447        479     23,049     35,235     225,210
   HIGHWAY VEHICLES                    289,894     3,326,325      2,429        467     22,801     34,534     217,270
      LIGHT DUTY VEHICLES              154,135     2,091,902      1,245        309     10,867     14,148      82,706
         LIMITED ACCESS                            1,019,706        609        195      5,481      4,487      34,338
         RURAL                                             0          0          0          0          0           0
         SUBURBAN                                    937,149        558        139      4,762      8,418      38,613
         URBAN                                       138,097         83         20        629      1,243       9,759
      LIGHT DUTY TRUCKS                 52,633       629,372        372        125      3,859      6,799      30,672
         LIMITED ACCESS                              307,861        181         61      1,936      3,109      17,786
         RURAL                                             0          0          0          0          0           0
         SUBURBAN                                    280,308        167         56      1,709      3,090      14,299
         URBAN                                        41,203         29          9        223        595       3,592
      HEAVY DUTY VEHICLES               83,126       610,051        807        243      8,076     13,577     103,993
         LIMITED ACCESS                              295,919        391        118      4,077      6,066      44,590
         RURAL                                             0          0          0          0          0           0
         SUBURBAN                                    273,879        363        109      3,533      6,219      48,123
         URBAN                                        40,258         53         16        465      1,292      11,280
   OFF-HIGHWAY VEHICLES                  4,072                       73         12        248        701       7,940

DIESEL POWERED VEHICLES                 40,391                      639        696      7,981        833       2,824
   HIGHWAY VEHICLES - HEAVY DUTY        15,831        98,374        237        303      2,948        285       1,521
         LIMITED ACCESS                               47,719        115        147      1,489        121         568
         RURAL                                             0          0          0          0          0           0
         SUBURBAN                                     44,163        107        136      1,299        136         731
         URBAN                                         6,492         15         20        160         28         222
   OFF-HIGHWAY VEHICLES                 22,630                      377        337      4,675        457       1,177
   RAILWAY LOCOMOTIVES                   1,930                       25         56        358         91         126

TOTAL - ALL MOTOR VEHICLES             334,357                    3,086      1,175     31,030     36,068     227,934
```

Figure 2.1.1.c NEDS Area Source Report (continued)

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02-16-78                          NATIONAL EMISSIONS DATA SYSTEM                                              PAGE 0009-5
              AREA SOURCE EMISSIONS REPORT FOR YEAR 1975              DATA FILE LAST UPDATED ON OCTOBER 26, 1977
                                                  TOTAL FOR STATE(08): DELAWARE

        TRANSPORTATION                                             EMISSIONS IN TONS PER YEAR
                                                                 PART          SOX          NOX           HC           CO
                                                    MEASURED
                                   GALLONS FUEL   VEHICLE MILES
                                   (THOUSANDS)     (THOUSANDS)
LAND VEHICLES                          337,357                   3,086        1,375       30,530       36,068      227,934

    HIGHWAY VEHICLES                   308,725       3,424,699   2,661          970       25,749       34,819      218,691

            LIMITED ACCESS                           1,661,200   1,291          471       12,983       15,778       87,182
            RURAL                                            0       0            0            0            0            0
            SUBURBAN                                 1,537,499   1,195          435       11,294       15,863      101,711
            URBAN                                      226,000     175           69        1,472        3,170       29,798

    OFF-HIGHWAY VEHICLES                26,702                     400          349        4,423        1,158        9,117

    RAILWAY LOCOMOTIVES                  1,930                      25           56          358           91          126

    TOTAL - ALL GASOLINE VEHICLES      293,966                   2,447          679       23,049       35,235      225,210

    TOTAL - ALL DIESEL VEHICLES         43,391                     639          696        7,481          833        2,724

AIRCRAFT                     162,860 LANDING-TAKEOFF CYCLES        514          105          324        1,342        2,168

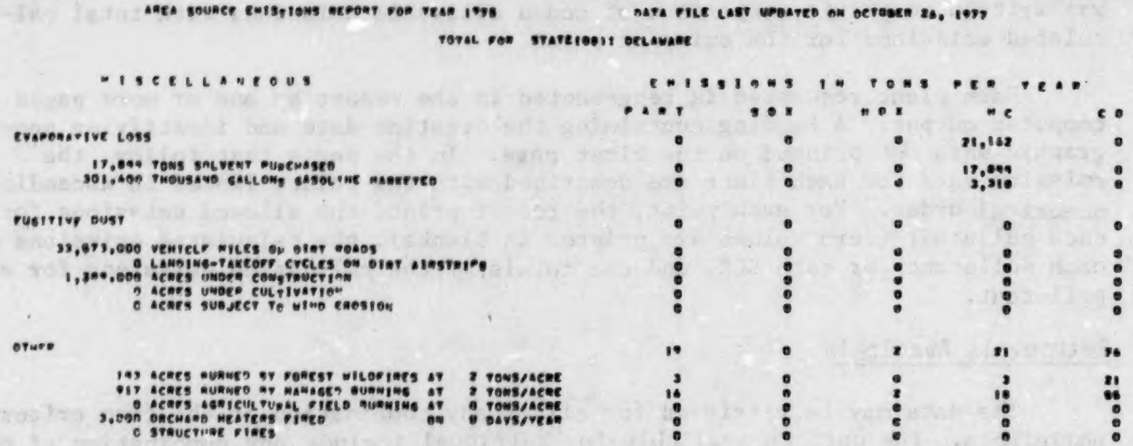
    MILITARY                  48,300 LANDING-TAKEOFF CYCLES        480           92          231        1,118        1,201
    CIVIL                    109,300 LANDING-TAKEOFF CYCLES         31            6           27          137          787
    COMMERCIAL                 5,260 LANDING-TAKEOFF CYCLES          5            7           66           87          180

VESSELS                                                              8           66          118        2,152        6,822

    COAL                           0 TONS                            0            0            0            0            0
    DIESEL OIL                   490 THOUSAND GALLONS                5            7           49           12           18
    RESIDUAL OIL                 310 THOUSAND GALLONS                3           44            6            0            0
    GASOLINE                   4,497 THOUSAND GALLONS                0           15           63        2,140        6,804

TOTAL TRANSPORTATION                                             3,610        1,546       30,972       39,562      236,924
```

Figure 2.1.1.c NEDS Area Source Report (continued)



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02-14-78          N A T I O N A L   E M I S S I O N S   D A T A   S Y S T E M                    PAGE 0009-6
        AREA SOURCE EMISSIONS REPORT FOR YEAR 1975        DATA FILE LAST UPDATED ON OCTOBER 26, 1977
                                   TOTAL FOR  STATE(08): DELAWARE

         M I S C E L L A N E O U S                          E M I S S I O N S   I N   T O N S   P E R   Y E A R
                                                           P A R T        S O X        N O X        H C        C O
EVAPORATIVE LOSS                                              0            0            0        21,162        0

        17,844 TONS SOLVENT PURCHASED                         0            0            0        17,844        0
       301,400 THOUSAND GALLONS GASOLINE MARKETED             0            0            0         3,318        0

FUGITIVE DUST                                                 0            0            0            0         0

    33,673,000 VEHICLE MILES ON DIRT ROADS                    0            0            0            0         0
             0 LANDING-TAKEOFF CYCLES ON DIRT AIRSTRIPS       0            0            0            0         0
     1,399,000 ACRES UNDER CONSTRUCTION                       0            0            0            0         0
             0 ACRES UNDER CULTIVATION                        0            0            0            0         0
             0 ACRES SUBJECT TO WIND EROSION                  0            0            0            0         0

OTHER                                                        19            0            2           21        76

           143 ACRES BURNED BY FOREST WILDFIRES AT    2 TONS/ACRE      3     0     0     3    21
           917 ACRES BURNED BY MANAGED BURNING  AT    2 TONS/ACRE     16     0     2    18    55
             0 ACRES AGRICULTURAL FIELD BURNING AT    0 TONS/ACRE      0     0     0     0     0
         3,000 ORCHARD HEATERS FIRED            ON    0 DAYS/YEAR      0     0     0     0     0
             0 STRUCTURE FIRES                                         0     0     0     0     0
```

Figure 2.1.1.c NEDS Area Source Report (continued)

ALLOWED VERSUS COMPUTED EMISSIONS REPORT

General Description

For each pollutant, allowed emissions may be entered into NEDS for a given emission point. The calculated emissions refer to the emissions associated with each SCC of that point source. The "Allowed Versus Computed Emissions Report" was written to permit comparison of coded allowable emissions with total calculated emissions for the emission point.

Each plant requested is represented in the report by one or more pages of computer output. A heading containing the creation date and identifying geographic data is printed on the first page. In the pages that follow, the emission data for each plant are described with the points listed in ascending numerical order. For each point, the report prints the allowed emissions for each pollutant (zero values are printed as blanks), the calculated emissions of each pollutant for each SCC, and the totals of the calculated emissions for each pollutant.

Retrievals Available

The data may be retrieved for all or any combination of the five criteria pollutants. The options available for retrieval include any combination of the following keys compatible with the restrictions set forth in the NEDS Point Source Report:

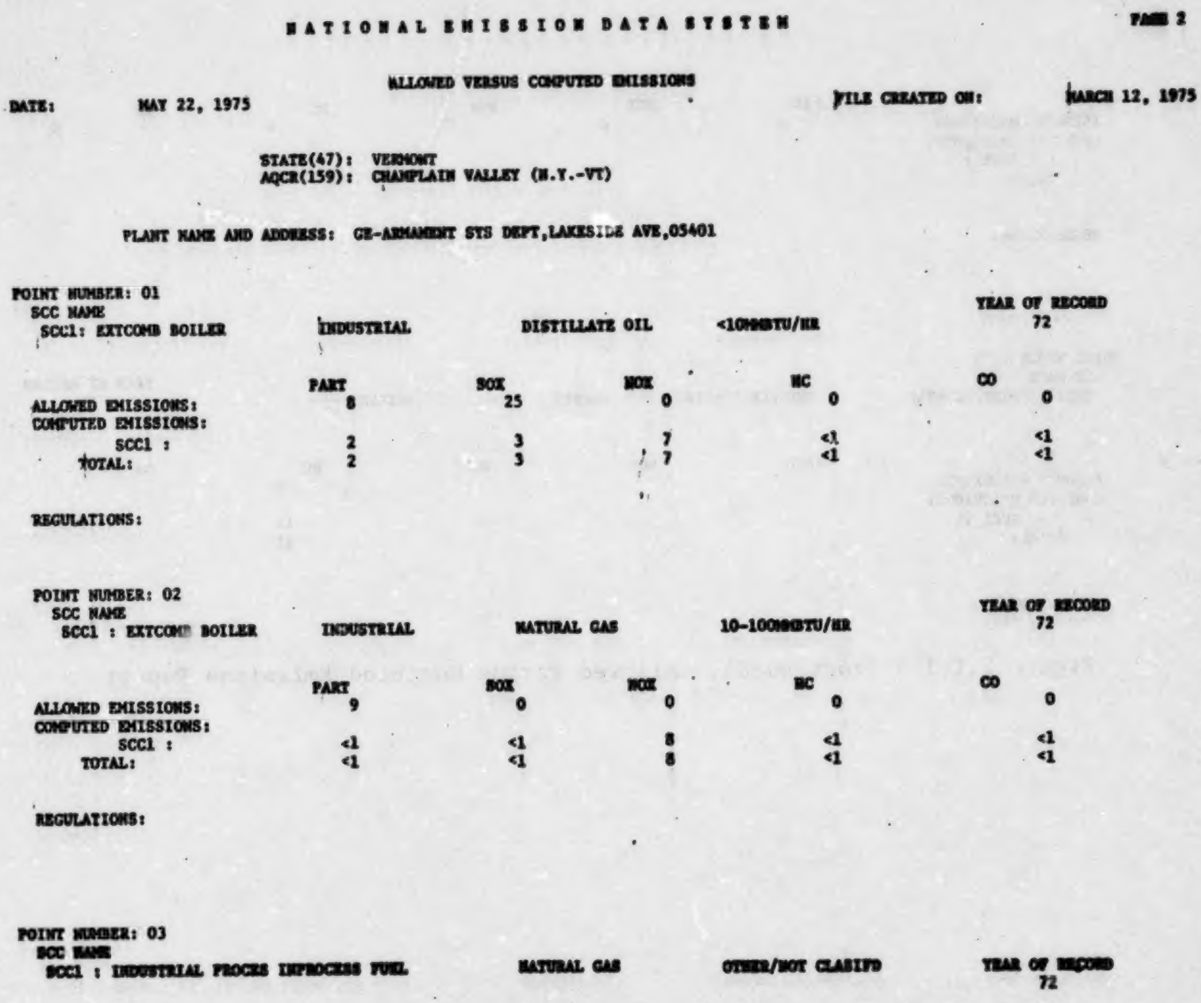
a. Nation
b. State
c. County
d. Plant
e. Point

Sorts Available

The data may be sorted either by state or AQCR.

Sample Report

Figure 2.1.1.d is a sample from an "Allowed Versus Computed Emissions Report" retrieved for the State of Vermont and the Air Quality Control Region of Champlain Valley.



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                    N A T I O N A L   E M I S S I O N   D A T A   S Y S T E M                          PAGE 2

                                      ALLOWED VERSUS COMPUTED EMISSIONS
DATE:        MAY 22, 1975                                                        FILE CREATED ON:        MARCH 12, 1975

                           STATE(47):   VERMONT
                           AQCR(159):   CHAMPLAIN VALLEY (N.Y.-VT)

               PLANT NAME AND ADDRESS:  GE-ARMAMENT SYS DEPT,LAKESIDE AVE,05401

POINT NUMBER: 01
  SCC NAME                                                                                  YEAR OF RECORD
   SCC1: EXTCOMB BOILER        INDUSTRIAL           DISTILLATE OIL        <10MMBTU/HR           72

                             PART             SOX              NOX              HC               CO
  ALLOWED EMISSIONS:           8               25                0                0                 0
  COMPUTED EMISSIONS:
         SCC1 :                2                3                7               <1                <1
      TOTAL:                   2                3                7               <1                <1

  REGULATIONS:


  POINT NUMBER: 02
    SCC NAME                                                                                YEAR OF RECORD
     SCC1 : EXTCOMB BOILER     INDUSTRIAL           NATURAL GAS           10-100MMBTU/HR        72

                             PART             SOX              NOX              HC               CO
  ALLOWED EMISSIONS:           9                0                0                0                 0
  COMPUTED EMISSIONS:
         SCC1 :               <1               <1                8               <1                <1
      TOTAL:                  <1               <1                8               <1                <1

  REGULATIONS:



 POINT NUMBER: 03
   SCC NAME
    SCC1 : INDUSTRIAL PROCES INPROCESS FUEL         NATURAL GAS           OTHER/NOT CLASIFD     YEAR OF RECORD
                                                                                                    72
```

Figure 2.1.1.d. Allowed Versus Computed Emissions Report

```
                            PART            SOX             NOX            HC             CO
  ALLOWED EMISSIONS:           2               0               0              0              0
  COMPUTED EMISSIONS:
         SCC1 :
     TOTAL:


  REGULATIONS:



POINT NUMBER: 04
  SCC NAME                                                                         YEAR OF RECORD
   SCC1 : POINT SC EVAP     SURFACE COATING     PAINT          GENERAL                  72


                            PART            SOX             NOX            HC             CO
  ALLOWED EMISSIONS:                                                          0
  COMPUTED EMISSIONS:
         SCC1 :                                                              11
     TOTAL:                                                                  11


  REGULATIONS:
```

Figure 2.1.1.d (continued). Allowed Versus Computed Emissions Report

POINT SOURCE CARDS

General Description

The "Point Source Cards" report selects data from NEDS and creates punched cards or a magnetic tape in the NEDS point source input format.

Retrievals Available

Cards may be retrieved for any one or all of the criteria pollutants subject to the restrictions set forth in the NEDS Point Source Report for the following key items:

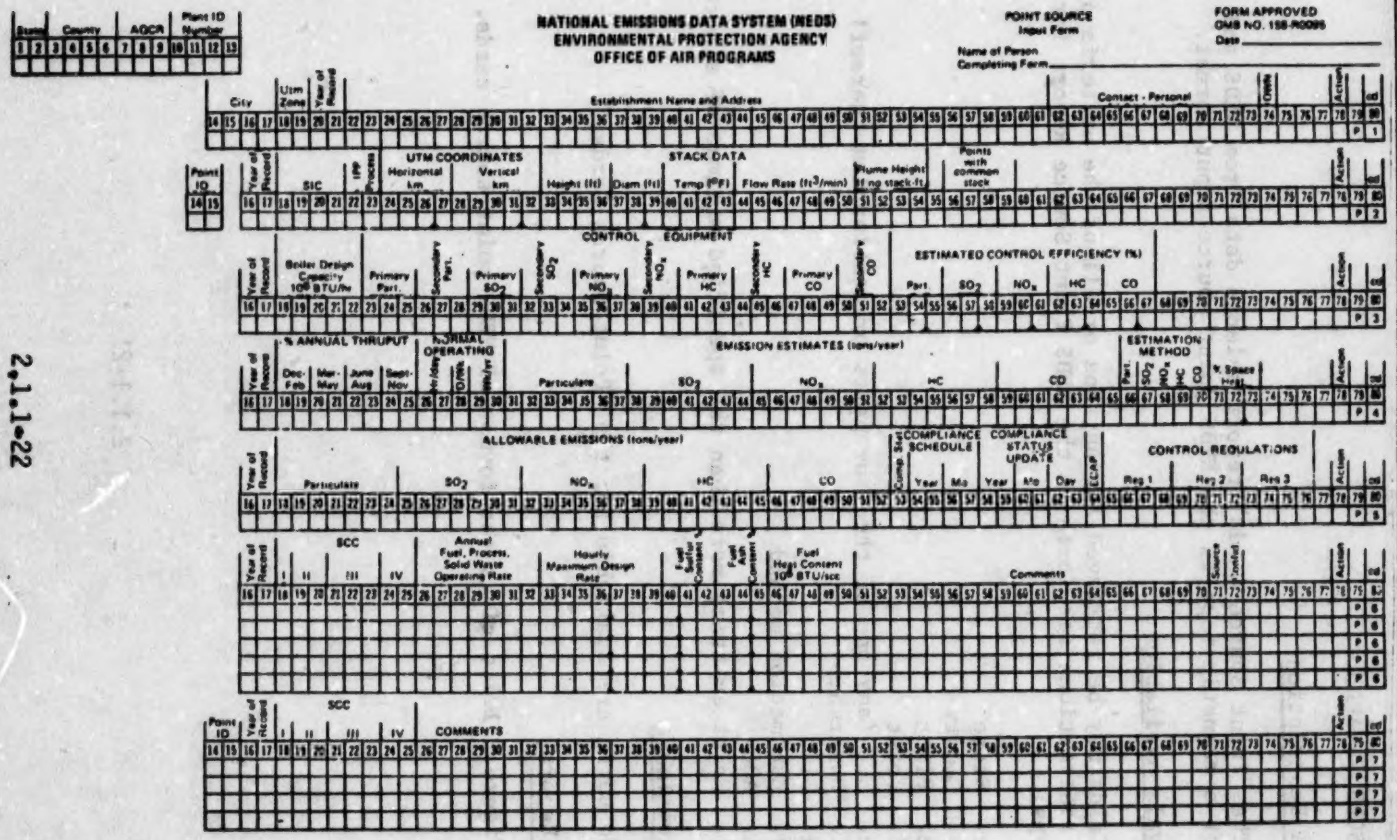
a. State
b. County
c. Plant
d. Point
e. SCC (any one of the four parts or combination thereof)
f. Ownership
g. SIC
h. Estimation method
i. AQCR
j. Point emitting more than the specified minimum of a certain pollutant

Sorts Available

No sorts are available for the "Point Source Cards."

Sample Report

Figure 2.1.1.e gives the format of NEDS point source cards.



NATIONAL EMISSIONS DATA SYSTEM (NEDS)
ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF AIR PROGRAMS

POINT SOURCE
Input Form

FORM APPROVED
OMB NO. 158-R0095
Date ______

Name of Person
Completing Form ______

State | County | AQCR | Plant ID Number

City | Utm Zone | Year of Record | Establishment Name and Address | Contact - Personal | Ownership | Action | P | cd 1

Point ID | Year of Record | SIC | IPP | Process | UTM COORDINATES: Horizontal km, Vertical km | STACK DATA: Height (ft), Diam (ft), Temp (°F), Flow Rate (ft³/min), Plume Height if no stack-ft | Points with common stack | Action | P | cd 2

Year of Record | Boiler Design Capacity 10⁶ BTU/hr | CONTROL EQUIPMENT: Primary Part., Secondary Part., Primary SO₂, Secondary SO₂, Primary NOₓ, Secondary NOₓ, Primary HC, Secondary HC, Primary CO, Secondary CO | ESTIMATED CONTROL EFFICIENCY (%): Part., SO₂, NOₓ, HC, CO | Action | P | cd 3

Year of Record | % ANNUAL THRUPUT: Dec-Feb, Mar-May, June-Aug, Sept-Nov | NORMAL OPERATING: hr/day, D/wk, wk/yr | EMISSION ESTIMATES (tons/year): Particulate, SO₂, NOₓ, HC, CO | ESTIMATION METHOD: Part., SO₂, NOₓ, HC, CO | % Space Heat | Action | P | cd 4

Year of Record | ALLOWABLE EMISSIONS (tons/year): Particulate, SO₂, NOₓ, HC, CO | Comp. Stat | COMPLIANCE SCHEDULE: Year, Mo | COMPLIANCE STATUS UPDATE: Year, Mo, Day | ECAP | CONTROL REGULATIONS: Reg 1, Reg 2, Reg 3 | Action | P | cd 5

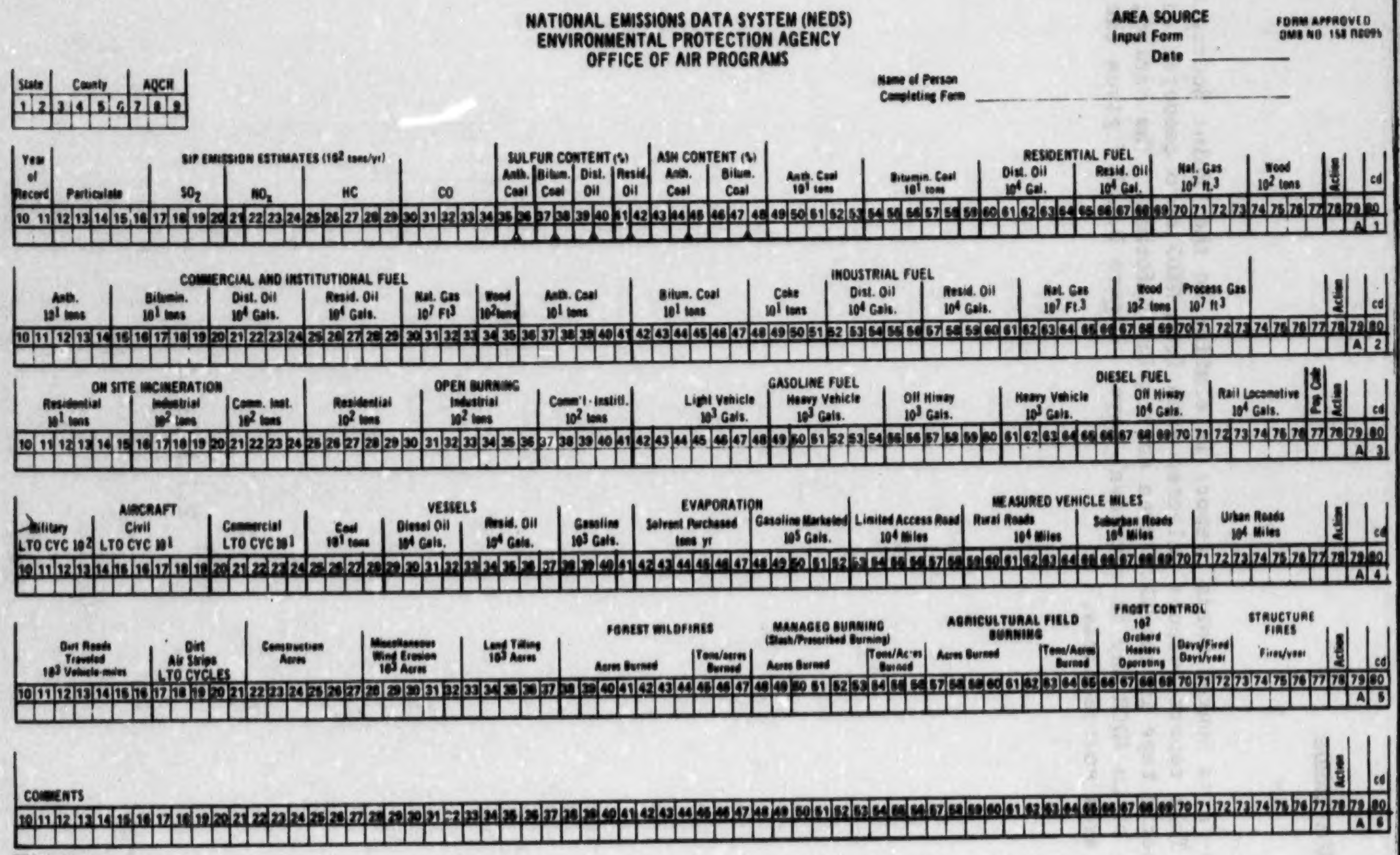
Year of Record | SCC: I, II, III, IV | Annual Fuel, Process, Solid Waste Operating Rate | Hourly Maximum Design Rate | Fuel Sulfur Content % | Fuel Ash Content % | Fuel Heat Content 10⁶ BTU/scc | Comments | Source | Confid | Action | P | cd 6

Point ID | Year of Record | SCC: I, II, III, IV | COMMENTS | Action | P | cd 7

2.1.1.e. Point Source Cards Format

AREA SOURCE CARDS

The "Area Source Cards" report is similar to the "Point Source Cards" report. This report outputs selected data from NEDS onto computer cards or onto magnetic tape in the NEDS area source input format. The nation, a state, a county, or an AQCR may be retrieval keys. Figure 2.1.1.f gives the format for NEDS area source cards.



NATIONAL EMISSIONS DATA SYSTEM (NEDS)
ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF AIR PROGRAMS

AREA SOURCE
Input Form
Date ____________

FORM APPROVED
OMB NO 158 R0095

Name of Person
Completing Form ____________

State	County	AQCR
1 2	3 4 5 6	7 8 9

Year of Record	SIP EMISSION ESTIMATES (10^2 tons/yr) Particulate	SO_2	NO_x	HC	CO	SULFUR CONTENT (%) Anth. Coal	Bitum. Coal	Dist. Oil	Resid. Oil	ASH CONTENT (%) Anth. Coal	Bitum. Coal	Anth. Coal 10^1 tons	Bitumin. Coal 10^1 tons	RESIDENTIAL FUEL Dist. Oil 10^4 Gal.	Resid. Oil 10^4 Gal.	Nat. Gas 10^7 ft.^{3}	Wood 10^2 tons	Action		cd
10 11	12 13 14 15 16	17 18 19 20	21 22 23 24	25 26 27 28 29	30 31 32 33 34	35 36	37 38	39 40	41 42	43 44 45	46 47 48	49 50 51 52 53	54 55 56 57 58 59	60 61 62 63 64	65 66 67 68	69 70 71 72 73	74 75 76 77	78	79	80
																			A	1

COMMERCIAL AND INSTITUTIONAL FUEL Anth. 10^1 tons	Bitumin. 10^1 tons	Dist. Oil 10^4 Gals.	Resid. Oil 10^4 Gals.	Nat. Gas 10^7 Ft^3	Wood 10^2tons	INDUSTRIAL FUEL Anth. Coal 10^1 tons	Bitum. Coal 10^1 tons	Coke 10^1 tons	Dist. Oil 10^4 Gals.	Resid. Oil 10^4 Gals.	Nat. Gas 10^7 Ft.^{3}	Wood 10^2 tons	Process Gas 10^7 ft^3		Action		cd
10 11 12 13 14	15 16 17 18 19	20 21 22 23 24	25 26 27 28 29	30 31 32 33	34 35	36 37 38 39 40 41	42 43 44 45 46 47	48 49 50 51	52 53 54 55 56	57 58 59 60 61	62 63 64 65 66	67 68 69	70 71 72 73	74 75 76 77	78	79	80
																A	2

ON SITE INCINERATION Residential 10^1 tons	Industrial 10^2 tons	Comm. Inst. 10^2 tons	OPEN BURNING Residential 10^2 tons	Industrial 10^2 tons	Comm'l - Instit. 10^2 tons	GASOLINE FUEL Light Vehicle 10^3 Gals.	Heavy Vehicle 10^3 Gals.	Off Hiway 10^3 Gals.	DIESEL FUEL Heavy Vehicle 10^3 Gals.	Off Hiway 10^4 Gals.	Rail Locomotive 10^4 Gals.	Pop Code	Action		cd
10 11 12 13 14 15	16 17 18 19 20	21 22 23 24	25 26 27 28 29 30	31 32 33 34 35 36	37 38 39 40 41	42 43 44 45 46 47 48	49 50 51 52 53 54	55 56 57 58 59 60	61 62 63 64 65 66	67 68 69 70 71	72 73 74 75 76	77	78	79	80
														A	3

AIRCRAFT Military LTO CYC 10^2	Civil LTO CYC 10^1	Commercial LTO CYC 10^1	VESSELS Coal 10^1 tons	Diesel Oil 10^4 Gals.	Resid. Oil 10^4 Gals.	Gasoline 10^3 Gals.	EVAPORATION Solvent Purchased tons yr	Gasoline Marketed 10^5 Gals.	MEASURED VEHICLE MILES Limited Access Road 10^4 Miles	Rural Roads 10^4 Miles	Suburban Roads 10^4 Miles	Urban Roads 10^4 Miles	Action		cd
10 11 12 13	14 15 16 17 18 19	20 21 22 23 24	25 26 27 28	29 30 31 32	33 34 35 36 37	38 39 40 41	42 43 44 45 46 47	48 49 50 51 52	53 54 55 56 57 58	59 60 61 62 63 64	65 66 67 68 69 70	71 72 73 74 75 76 77	78	79	80
														A	4

Dirt Roads Traveled 10^3 Vehicle-miles	Dirt Air Strips LTO CYCLES	Construction Acres	Miscellaneous Wind Erosion 10^3 Acres	Land Tilling 10^3 Acres	FOREST WILDFIRES Acres Burned	Tons/acres Burned	MANAGED BURNING (Slash/Prescribed Burning) Acres Burned	Tons/Acres Burned	AGRICULTURAL FIELD BURNING Acres Burned	Tons/Acres Burned	FROST CONTROL 10^2 Orchard Heaters Operating	Days/Fired Days/year	STRUCTURE FIRES Fires/year	Action		cd
10 11 12 13 14 15 16	17 18 19 20 21	22 23 24 25 26 27	28 29 30 31 32	33 34 35 36 37	38 39 40 41 42 43 44	45 46 47	48 49 50 51 52 53	54 55 56	57 58 59 60 61 62	63 64 65	66 67 68 69	70 71 72	73 74 75 76 77	78	79	80
															A	5

COMMENTS	Action		cd
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77	78	79	80
		A	6

EPA (DUR) 219
3/72

Figure 2.1.1.f. Area Source Cards Format

FORM APPROVED
OMB NO. 158-R0095

NATIONAL EMISSIONS DATA SYSTEM (NEDS)
ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF AIR PROGRAMS

AREA SOURCE
Input Form
Date ____________

Name of Person
Completing Form ______________________________

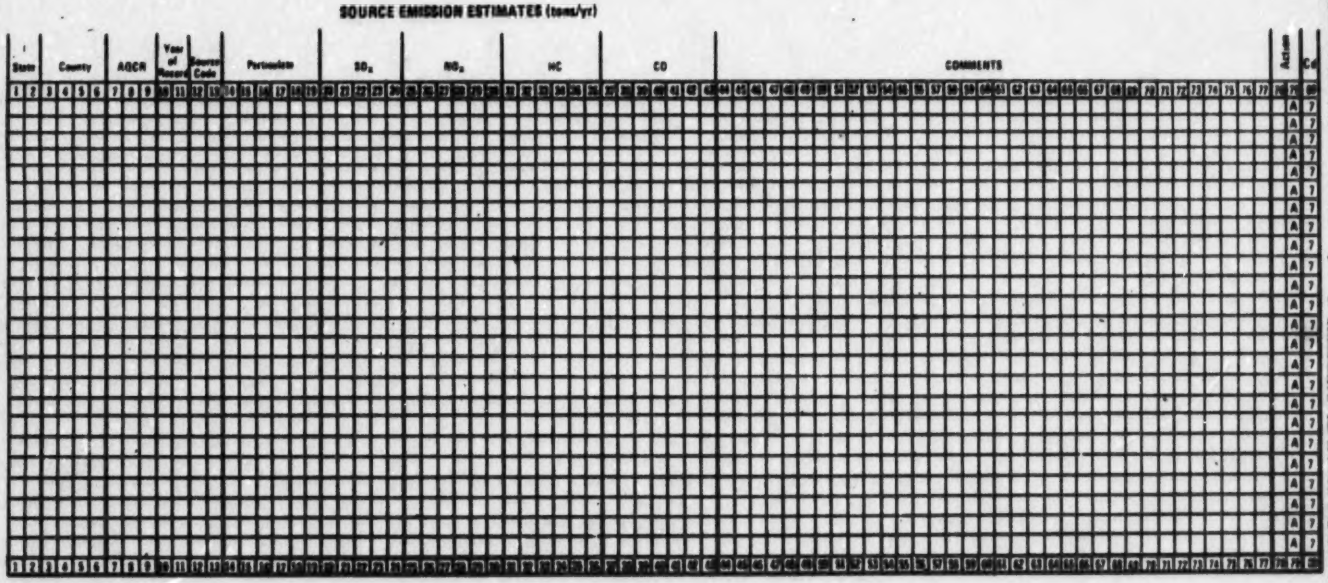

SOURCE EMISSION ESTIMATES (tons/yr)
State
County
AQCR
Year of Record
Source Code
Particulate
SO_x
NO_x
HC
CO
COMMENTS
Action
Cd
A
7

Figure 2.1.1.f (continued). Area Source Cards Format

2.1.2.1 EMISSION SUMMARY REPORT

2.1.2.1.1 GENERAL DESCRIPTION

The "Emission Summary Report" shows the annual number of tons of particulates, sulfur oxides, nitrogen oxides, hydrocarbons, and carbon monoxide emitted by SCC group within a given geographical area based on emissions as of a specific date. The emission sources included are:

- Fuel Combustion
    - Residential Fuel (Area)
    - Electric Generation (Point)
    - Industrial Fuel (Area and Point)
    - Commercial Industrial Fuel (Area and Point)
    - Internal Combustion (Point)
- Industrial Process (Point)
    - 13 Categories
- Solid Waste Disposal
    - Government (Point)
    - Residential (Area)
    - Commercial-Institutional (Area and Point)
    - Industrial (Area and Point)
    - Other (Point)
- Transportation (Area)
    - Land Vehicles
    - Aircraft
    - Vessels
    - Gas Handling Evaporative Loss
- Miscellaneous (Area)
- Other (Point)

A grand total of emissions, subdivided in area and point source emissions, is also printed.

2.1.2.1.2 RETRIEVALS AVAILABLE

The retrieval keys for the "Emission Summary Report" are as follows:

a. Nation
b. State
c. EPA Region
d. State/County
e. AQCR
f. State portions of interstate AQCRs

2.1.2.1.3 SAMPLE REPORTS

A sample "Emission Summary Report" is represented in Figure 2.1.2.a.

The format of this report is somewhat shorter when retrieval is for an area where all categories of emissions are not present because the inactive categories will be omitted.

```
                         NATIONAL EMISSIONS DATA SYSTEM
                         ******************************

                         ENVIRONMENTAL PROTECTION AGENCY
                         *******************************

STATE EMISSIONS REPORT                                        RUN DATE:   MONDAY    APRIL 24, 1978
**********************                           AREA EMISSIONS AS OF: WEDNESDAY  OCTOBER 26, 1977
STATE 15:INDIANA                                 POINT EMISSIONS AS OF: THURSDAY    APRIL 06, 1978

                         PARTICULATES      SOX           NOX           HC            CO
                         ************  ************  ************  ************  ************
                          TONS / YR     TONS / YR     TONS / YR     TONS / YR     TONS / YR

FUEL COMBUSTION
***************

   EXTERNAL COMBUSTION

      RESIDENTIAL FUEL (AREA)

         ANTHRACITE COAL            713          1559           215           176          6366
         BITUMINOUS COAL           1391          8124           212          1391          6233
         DISTILLATE OIL            2172          4293          2610           651          1086
         NATURAL GAS                917            42          7314           735          1838
         WOOD                       648            33           270           508           508
         TOTAL (RESIDENTIAL)       5841         14051         10621          3461         16031

      ELEC GENERATION (POINT)

         BITUMINOUS COAL         258020       1474470        413452          4407         35703
         RESIDUAL OIL               223          1793          8437            16           241
         DISTILLATE OIL            2062         33506          8620           170           454
         NATURAL GAS                277          1734         13991            24           994
         PROCESS GAS                220          1728          8414            15           243
         OTHER                      453          3475         16804            35           487
         TOTAL (ELEC GEN)        261195       1516706        469718          4667         38122

      INDUSTRIAL FUEL

         BITUMINOUS COAL
            AREA SOURCES          92484         61506         10163           677          1357
            POINT SOURCES         28368         96199         20535           822          2104
         RESIDUAL OIL
            AREA SOURCES            442          5233          1167            50            73
            POINT SOURCES          2316         24527         39165           468          1427
         DISTILLATE OIL
            AREA SOURCES            844           864          3383           163           230
            POINT SOURCES          2061         26761         18756           455           844
         NATURAL GAS
            AREA SOURCES            315            13          5716            89           535
            POINT SOURCES           957          4184         48070           415          1933
         PROCESS GAS
            POINT SOURCES          3114         24126         84056           737          2855
         WOOD
```

Figure 2.1.2-a NEDS Emissions Summary Report

```
            POINT SOURCES               519             97            630            408            510
        OTHER
            POINT SOURCES               153           1039           1571             39            154
        TOTAL (INDUSTRIAL)
            AREA SOURCES              94085          87616          20429            979           2195
            POINT SOURCES             37488         176933         212783           3344           9827

    COMM-INSTITUTIONAL FUEL

        BITUMINOUS COAL
            POINT SOURCES              5906          25104           3446            220            475
        RESIDUAL OIL
            AREA SOURCES               1356          15979           3553            173            242
            POINT SOURCES                72            386            146             12             15
        DISTILLATE OIL
            AREA SOURCES               1135           1267           4616            232            308
            POINT SOURCES                44            414            224             12             67
        NATURAL GAS
            AREA SOURCES                394             16           4727            392            792
            POINT SOURCES                44             14            634             33             86
        WOOD
            POINT SOURCES                 3              0              3              1              3
        TOTAL (COMM-INST)
            AREA SOURCES               2905          17242          12896            717           1342
            POINT SOURCES              6069          25916           4453            278            626

    TOTAL (EXTERNAL COMB)
            AREA SOURCES             102831         118909          43946           5157          19568
            POINT SOURCES            304752        1719557         686954           8289          48575

INTERNAL COMBUSTION (POINT)

    ELECTRIC GENERATION

        DISTILLATE OIL                    5             67           6400              3              7
        NATURAL GAS                       3              0          18947              0              0
        TOTAL (ELEC GEN)                  8             67          25347              3              7

    INDUSTRIAL FUEL

        DISTILLATE OIL                    2              2              5              0              0
        NATURAL GAS                       2              0           2929           1691            327
        DIESEL FUEL                       0              2              0              2              0
        OTHER                             0              0            362              0              0
        TOTAL (INDUSTRIAL)                4              4           3236           1693            327

    COMM-INSTITUTIONAL

        TOTAL (COMM-INST)                 1              3             10              1              2

    ENGINE-TESTING

        TOTAL (ENG TESTNG)               54             93            779            282            197

    TOTAL (INTERNAL COMB)                67            167          29372           1979            533

TOTAL (FUEL COMBUSTION)
```

Figure 2.1.2-a NEDS Emissions Summary Report (continued)

```
                AREA SOURCES          102631       118909        43946         5157        19568
               POINT SOURCES          304619      1719724       716326        10268        49108

INDUSTRIAL PROCESS (POINT)
**************************

   CHEMICAL MANUFACTURING               1262         2930          160         1961         1355
   FOOD/AGRICULTURAL                   21371           11            2        10829            5
   PRIMARY METAL                       54389        35293         1094        25396      1272898
   SECONDARY METALS                     3896         1937          216          610        51123
   MINERAL PRODUCTS                    40773         4576         3547          667          285
   PETROLEUM INDUSTRY                    934        18021        12383         1239       210874
   WOOD PRODUCTS                         905            1            8          322            1
   ORGANIC SOLVENT EVAPORATION           747            1           34        83783         2688
   PETROLEUM STORAGE/TRANSPORT             0            0            0        18882            0
   METAL FABRICATION                      62           24           10          112            2
   OTHER/NOT CLASSIFIED                 1294         4637         3782         1489         2306
   TOTAL (INDUSTRIAL)                 125659        67633        21236       143288      1541537

SOLID WASTE DISPOSAL
********************

   GOVERNMENT (POINT)

      MUNICIPAL INCINERATION             269           76           75          320          408
      OPEN BURNING                         3            0            1            6           18
      TOTAL (GOVERNMENT)                 272           76           76          326          426

   RESIDENTIAL (AREA)

      ON SITE INCINERATION              3404           46          102         9573        28707
      OPEN BURNING                      5265          331         1985         9888        27976
      TOTAL (RESIDENTIAL)               8669          371         2087        19461        56683

   COMMERCIAL-INSTITUTIONAL

      ON SITE INCINERATION
              AREA SOURCES              1205          382          459          764         1732
              POINT SOURCES               21           26           90            5           20
      OPEN BURNING
              AREA SOURCES               565           26          225         1114         3085
      TOTAL (COMM-INST)
              AREA SOURCES              1770          408          684         1878         4817
              POINT SOURCES               21           26           90            5           20

   INDUSTRIAL

      ON SITE INCINERATION
              AREA SOURCES               592          183          216          378          856
              POINT SOURCES               70           64           47          149          832
      OPEN BURNING
              AREA SOURCES               783           40          302         1498         4186
              POINT SOURCES               10            0            1            8           36
      TOTAL (INDUSTRIAL)
              AREA SOURCES              1375          223          518         1876         5042
              POINT SOURCES               80           64           48          157          868
```

Figure 2.1.2-a NEDS Emissions Summary Report (continued)

```
TOTAL (SOLID WASTE DISP)
              AREA SOURCES           11814          1002          3289          23215          46542
              POINT SOURCES            373           166           214            488           1314

TRANSPORTATION (AREA)
*********************

   LAND VEHICLES

      GASOLINE

         LIGHT DUTY VEHICLES         17205          4143        142056         228738        1565241
         LIGHT DUTY TRUCKS            2464           820         24189          51986         276603
         HEAVY DUTY VEHICLES          1365           410         12981          27795         229624
         OFF HIGHWAY                   374           193          4232          11919         135177
         TOTAL (GASOLINE)            21408          5566        183458         320438        2204645

      DIESEL

         HEAVY DUTY VEHICLES          4649          5927         51905           7119          48498
         OFF HIGHWAY                  3370          3019         37368           4100          10531
         RAIL                         1332          3029         19653           4990           6911
         TOTAL (DIESEL)               9351         11975        108926          16209          65940

   AIRCRAFT

      MILITARY                         177            33            86            412            443
      CIVIL                            378            74           336           1662           9505
      COMMERCIAL                        76           108          1064           1397           2882
      TOTAL (AIRCRAFT)                 631           215          1486           3471          12830

   VESSELS

      DIESEL FUEL                      109           136          1018            268            336
      RESIDUAL OIL                     181          2691           394             28             13
      GASOLINE                           0           135           592          20006          63634
      TOTAL (VESSELS)                  290          2962          2004          20302          63983

   TOTAL (TRANSPORTATION)            31680         20718        295874         360420        2347398

MISCELLANEOUS (AREA)
********************

   FOREST WILDFIRES                     37             0             0             60            338
   GASOLINE STA EVAP LOSS                0             0             0          30630              0
   SOLVENT EVAPORATION LOSS              0             0             0         203112              0
   TOTAL (MISCELLANEOUS)                37             0             0         233802            338

GRAND TOTAL
***********

   AREA SOURCES                     146362        140629        343109         622594        2433846

   POINT SOURCES                    430851       1767523        737776         154044        1591959

   TOTAL                            577213       1928152       1080885         776638        4025805
```

Figure 2.1.2-a NEDS Emissions Summary Report (continued)

********************					
LAND VEHICLES					
GASOLINE					
LIGHT VEHICLES	666245	172730	5669342	8834758	52789926
HEAVY VEHICLES	65654	24879	706630	1835126	10304437
OFF HIGHWAY	19935	10433	227300	640911	7266141
TOTAL (GASOLINE)	751834	208043	6603272	11310795	70360504
DIESEL					
HEAVY VEHICLES	84754	118655	1074240	134723	610096
OFF HIGHWAY	49812	44576	551967	60432	155568
RAIL	57231	130486	847015	215188	297600
TOTAL (DEISEL)	191796	293717	2473222	410343	1063263
AIRCRAFT					
MILITARY	154806	29561	74369	360177	386626
CIVIL	10266	2039	9273	45465	259800
COMMERCIAL	5568	8043	77957	102397	211289
TOTAL (AIRCRAFT)	170640	39643	161600	508038	857716
VESSELS					
BITUMINOUS COAL	1273	3183	191	1273	5729
DIESEL FUEL	18459	23074	172284	45225	60299
RESIDUAL OIL	4973	73692	10770	747	361
GASOLINE	0	2136	9290	315644	1003551
TOTAL (VESSELS)	24705	102085	192535	362889	1069940
GAS HANDLING EVAP LOSS	0	0	0	1194082	0
TOTAL (TRANSPORTATION)	1138975	643488	9430630	13786146	73351624
MISCELLANEOUS (AREA) ********************					
FOREST FIRE/AGRIC BURNING	219573	0	51664	309985	1808249
STRUCTURAL FIRES	538	0	54	134	1613
SLASH BURNING	241613	0	28425	284251	852752
FROST CONTROL	7	0	0	1536	786
SOLVENT EVAPORATION LOSS	0	0	0	1568383	0
TOTAL (MISCELLANEOUS)	461731	0	80143	2164290	2663399
OTHER (POINT) *************	299	132	86	554	5
GRAND TOTAL ***********					
AREA SOURCES	3482363	3143784	11336931	16966732	78957485
POINT SOURCES	13346822	34715388	13855795	6569620	[illegible]
TOTAL	16829184	37859172	25192726	23536353	104798209

Figure 2.1.2.a (continued). Emissions Summary Report

```
STATE: INDIANA                               ***NEDS ANNUAL FUEL SUMMARY REPORT***
                                        USER FILE CREATE DATE: THURSDAY    APRIL 06, 1978
                                        AREA FILE CREATE DATE: WEDNESDAY   OCTOBER 26, 1977

                                                                                                          DATE OF RUN: 04/24/78

                             ANTH COAL     BITH COAL     RESID OIL     DIST OIL       NAT GAS      WOOD/BARK     GASOLINE       DIESEL
                           ************* ************* ************* ************* ************* ************* ************* *************
                               TONS          TONS        1000 GALS     1000 GALS     10E6 CUFT       TONS        1000 GALS     1000 GALS
AREA SOURCES
  STATIONARY
      RESIDENTIAL               141380        138390                      434360        183000         50800
      INDUSTRIAL                             1355140         38710        112580         63410
      COMM-INSTL                                            118240        153640         78780
  MOBILE
      LIGHT DUTY VEHICLES                                                                                           2141110
      LIGHT DUTY TRUCKS                                                                                              350685
      HEAVY DUTY VEHICLES                                                                                            141600        369254
      RAILROAD                                                                                                                     106230
      OFF-HIGHWAY                                                                                                     69321        202540
      VESSELS                                                18820                                                    42980          9090

      AREA TOTAL                141380       1493550        175770        700400        325190         50800       2745696        687114

POINT SOURCES
  EXT COMB
      ELEC GEN                              29237189         11470         52800         24959          5000
      INDUSTRIAL                             2434301        254827        288897        191858        121411
      COMM-INSTL                              503947          5402         15973          9899           556
    INPROCESS                                 420505        194720         19412         53991          8750
    INTERNL COMB
      ELEC GEN                                                              1676            84
      INDUSTRIAL                                                              93       1673581                                         46
      COMM-INSTL                                                                                                                       43

      POINT TOTAL                           32595942        466619        378251       1954372        135717                          109

     GRAND TOTAL                141380      34089492        642389       1078851       2279562        186517       2745696        687223
                              LIGNITE        COKE        BAGASSE     PROCESS GAS    LIQ-PETRO     JET FUEL     SOLID WASTE  LIQUID WASTE
                           ************* ************* ************* ************* ************* ************* ************* *************
                               TONS          TONS          TONS        10E6 CUFT     1000 GALS     1000 GALS       TONS        1000 GALS
POINT SOURCES
  EXT COMB
      ELEC GEN                                                             10160
      INDUSTRIAL                                                         1225381             3
      COMM-INSTL
    INPROCESS                                  29021                      160866         30000
    INTERNL COMB
      ELEC GEN
      INDUSTRIAL                                                             784
      COMM-INSTL

      GRAND TOTAL                              29021                     1397191         30003
```

Figure 2.1.2-b NEDS Annual Fuel Summary Report

```
                                  NATIONAL EMISSIONS DATA SYSTEM (NEDS)                    PAGE 1
                                   ENVIRONMENTAL PROTECTION AGENCY                         DATE 05/06/75

                                    AREA SOURCE FUEL USAGE REPORT
                                    *****************************
                                                                 UPDATE DATE    WEDNESDAY  MARCH 12, 1975
STATE: RHODE ISLAND
*****
                                           RESIDENTIAL FUEL
                                           ****************

                      ANTH. COAL  BITUM. COAL   DIST. OIL     RESID. OIL    NAT. GAS    WOOD
                       10 TONS     10 TONS    10,000 GALS.  10,000 GALS.  10E7 CUFT   100 TONS
                      **********  ***********  ************  ************  *********   ********

   ***COUNTY***
BRISTOL                    15                      1034                        65          2
KENT                       63                      3346                       172          3
NEWPORT                                            2018                        64          2
PROVIDENCE                172                     13667                      1028         11
WASHINGTON                 43                      1769                        62          4

   TOTAL RESIDENTIAL      293                     21834                      1389         22
                                    COMMERCIAL AND INSTITUTIONAL                                   Page 2
                                    ****************************

                      ANTH. COAL  BITUM. COAL   DIST. OIL     RESID. OIL    NAT. GAS    WOOD
                       10 TONS     10 TONS    10,000 GALS.  10,000 GALS.  10E7 CUFT   100 TONS
                      **********  ***********  ************  ************  *********   ********

   ***COUNTY***
BRISTOL                     4           3           168           380          23
KENT                       13           8           846          1896          72
NEWPORT                     9           6           402           913          48
PROVIDENCE                 56          35          5138         11117         296
WASHINGTON                  8           5           367           833          44

   TOTAL COMMERCIAL .      90          57          6921         15139         483
                                           INDUSTRIAL FUEL                                         Page 3
                                           ***************

                      ANTH. COAL  BITUM. COAL   DIST. OIL     RESID. OIL    NAT. GAS    WOOD      COKE     PROCESS GAS
                       10 TONS     10 TONS    10,000 GALS.  10,000 GALS.  10E7 CUFT   100 TONS   10 TONS    10E7 CUFT
                      **********  ***********  ************  ************  *********   ********   *******   ***********

   ***COUNTY***
BRISTOL                                36           285           295          17
KENT                                   73          1388          1441          35
NEWPORT                                15            57            60           7
PROVIDENCE                            522          4242          4402         251
WASHINGTON                             40           132           137          19

   TOTAL INDSUTRIAL -                 685          6104          6335         329

TOTAL USAGE FOR STATE -   383         743         34859         21474        2201         22
```

Figure 2.1.2.b. Area Source Fuel Usage Report

2.1.2.3 ANNUAL FUEL SUMMARY REPORT

2.1.2.3.1 GENERAL DESCRIPTION

The "Annual Fuel Summary Report" summarizes fuel use by fuel type for both point and area sources in a specific geographic area. The area source fuel use data are reported for both stationary and mobile area sources. Stationary source fuel use is further subdivided into residential, industrial, and commercial-institutional categories. Mobile source fuel use is reported for light and heavy highway vehicles (farm machinery, construction equipment, etc.) and vessels. The point source fuel use is broken down according to the kind of equipment in which the fuel is consumed--either external combustion equipment (boilers), internal combustion engines, or inprocess fuel use (dryers, furnaces, etc.). External and internal combustion categories are subdivided into electric utility, industrial, and commercial-institutional portions. Inprocess fuel use is all by industrial sources. The fuel types included are anthracite and bituminous coal, residual and distillate oil, natural gas, wood/bark, gasoline, diesel fuel, lignite coal, coke, bagasse, industrial process gas, liquified petroleum gas, jet fuel, solid waste, and liquid waste.

The date of file creation is included at the beginning of each report. Subtotals are printed for area and point sources, and a grand total is given for each fuel. Either English or metric units of measurement may be selected.

2.1.2.3.2 RETRIEVALS AVAILABLE

The retrieval keys for the "Annual Fuel Summary Report" are as follows:

a. Nation
b. State
c. County
d. AQCR

2.1.2.3.3 SAMPLE REPORT

A sample "Annual Fuel Summary Report" is presented in Figure 2.1.2.c.

```
                                     ***NEDS ANNUAL FUEL SUMMARY REPORT***
NATIONAL REPORT                                    USER FILE CREATE DATE:  SATURDAY  DECEMBER 06, 1975
                                                   DATE OF RUN: 01/09/76
------------------------------------------------------------------------------------------------------------
                    ANTH COAL    BITH COAL    RESID OIL    DIST OIL     NAT GAS      WOOD/BARK    GASOLINE     DIESEL
                  ************ ************ ************ ************ ************ ************ ************ ************
                      TONS         TONS      1000 GALS    1000 GALS    10E6 CUFT       TONS      1000 GALS    1000 GALS
AREA SOURCES------------------------------------------------------------------------------------------------
  STATIONARY
    RESIDENTIAL      2876940      5187340       819730     14757640      5609690      4673800
    INDUSTRIAL         11440     16122180      4271170      4649110      3967620       157500
    COMM-INSTL        265380      4122730      5919150      7510250      2446390         4700
  MOBILE----------------------------------------------------------------------------------------------------
    LIGHT VEHICLE                                                                                 83667348
    HEAVY VEHICLE                                                                                  7850729      7699684
    RAILROAD                                                                                                    4573060
    OFF-HIGHWAY                                                                                    3741866      2996860
    VESSELS           127310                    512680                                              687196      1547790
------------------------------------------------------------------------------------------------------------
    AREA TOTAL       3281070     25432250     11422730     26917000     12023700      4836000     95947139     16817394

POINT SOURCES
  EXT COMB
    ELEC GEN         4241402    306863097     20377090       960528      4257339       452710
    INDUSTRIAL        665326     51658754      8538821      2768187      4593453     33949879
    COMM-INSTL         97274      3017785       599386       231315      9842916       134915

  INPROCESS           373726      5109129      1272564      1780252      3618379       978971

  INTERNL COMB
    ELEC GEN                                                1070042       398225                                  70593
    INDUSTRIAL                                      13        33012      1215881                      2061        91710
    COMM-INSTL

    POINT TOTAL      5377728    446648765     30885874      6749536     23574193     35116275         2061       102303

    GRAND TOTAL      8658798    472081015     42308604     33666536     35597893     39952275     95949200     16919697
                    LIGNITE      COKE         BAGASSE     PROCESS GAS  LIQ-PETRO    JET FUEL    SOLID WASTE  LIQUID WASTE
                  ************ ************ ************ ************ ************ ************ ************ ************
                      TONS         TONS         TONS       10E6 CUFT    1000 GALS    1000 GALS       TONS      1000 GALS
POINT SOURCES-----------------------------------------------------------------------------------------------
  EXT COMB
    ELEC GEN         8018397        40172                     40564
    INDUSTRIAL       1142527       108042      7520107      2088499       279289                    201219
    COMM-INSTL        161511                                                4949
  INPROCESS-------------------2939671-------------------10576559---------45581------------------------------

  INTERNL COMB
    ELEC GEN                                                                             699
    INDUSTRIAL                                                                           137
    COMM-INSTL
------------------------------------------------------------------------------------------------------------
    GRAND TOTAL      9322435      3087885      7520107     12705843       329819          836       201219
```

Figure 2.1.2.c. Annual Fuel Summary Report

2.1.2.4 PLANT EMISSION SUMMARY REPORT

2.1.2.4.1 GENERAL DESCRIPTION

The "Plant Emission Summary Report" lists the name, identifying geographic data, and criteria pollutant emissions for each plant in the region requested. For each of the five criteria pollutants, emission totals are printed, as well as subtotals for fuel combustion and process emissions. If the emissions totals are different from the sum of fuel combustion and process emissions, the difference is the plant solid waste emissions.

2.1.2.4.2 RETRIEVALS AVAILABLE

The retrieval keys for the "Plant Emission Summary Report" are nation, state, state/county, and AQCR.

2.1.2.4.3 SORTS AVAILABLE

The "Plant Emission Summary Report", if selected by nation, state, or state/county, can be sorted by state/county/plant codes. If selected by AQCR, the sort is by descending order of pollutant emission for any one of the five criteria pollutants.

2.1.2.4.4 SAMPLE REPORT

A sample page from the "Plant Emission Summary Report" retrieved for the Air Quality Control Region of Metropolitan Providence is presented in Figure 2.1.2.d.

```
                                   ***PLANT EMISSIONS REPORT (TONS/YR)***              UPDATE DATE    FRIDAY    JANUARY 10, 1975
STATE COUNTY PLANT AQCR               PLANT NAME AND ADDRESS                    PART        SO2         NOX         HC          CO
***** ****** ***** ****               **********************                    ****        ***         ***         **          **

 22    2121  0061  120  NEW ENGLAND POWER-BRAYTON PT, SOMERSET      PROC           0           0           0           0           0
                                                                    COMB        1050       63401       21201         404         606
                                                                    TOT         1050       63401       21201         404         606

 41    0320  0042  120  PROVIDENCE INCINERATOR, PROVIDENCE          PROC           0           0           0           0           0
                                                                    COMB           0           0           0           0           0
                                                                    TOT          900          75          60          45        1050

 22    2121  0054  120  CANAL ELECTRIC, SANDWICH                    PROC           0           0           0           0           0
                                                                    COMB         650       30998        8531         163         244
                                                                    TOT          650       30998        8531         163         244

 22    2121  0060  120  MONTAUP ELECTRIC CO, SOMERSET               PROC           0           0           0           0           0
                                                                    COMB         377       26129        7376         144         216
                                                                    TOT          377       26129        7376         144         216
```

Figure 2.1.2.d. Plant Emission Report

2.1.2.5 SCC EMISSIONS REPORT

2.1.2.5.1 GENERAL DESCRIPTION

For each state, the "SCC Emission Report" prints one line listing the total emissions in tons per year for each of the five criteria pollutants by county number and SCC category. The update date and the number of sources included in each SCC category in each county are also included.

2.1.2.5.2 RETRIEVALS AVAILABLE

The "SCC Emission Report" may be retrieved only for the nation.

2.1.2.5.3 SAMPLE REPORT

A sample "SCC Emission Report" for the first few counties of Alabama is presented in Figure 2.1.2.e.

```
                    *****SCC EMISSIONS REPORT (TONS/YR)*****     UPDATE DATE:   SUNDAY    JUNE 15, 1975

STATE: 01              SCC     FREQ        PART         SO2          NOX          HC          CO
*****                  ***     ****        ****         ***          ***          **          **

         ***COUNTY***
             0240   10200401 (001)          6.3      2,994.3          0.0          0.0         0.0
                    10200601 (001)          5.1          8.1          0.0          0.0         0.0
                    10200902 (001)        967.6      1,029.6          0.0          0.0         0.0
                    30700103 (001)          0.0          0.0          0.0          0.0         0.0
                    30700104 (001)        110.0        815.5          0.0          0.0         0.0
                    30700105 (001)         17.0          0.0          0.0          0.0         0.0
                    30700106 (001)        140.0          0.0          0.0          0.0         0.0
                    30700107 (001)          0.0          0.0          0.0          0.0         0.0
                    30900199 (001)        278.0          0.0          0.0          0.0         0.0
                    39000499 (001)          0.0          0.0          0.0          0.0         0.0
                    39000503 (001)          0.0          0.0          0.0          0.0         0.0
                    39000603 (001)          0.0          0.0          0.0          0.0         0.0
             0260   30500201 (001)         30.6          0.0          0.0          0.0         0.0
                    50300105 (002)         33.0          0.3         23.0         48.0       438.0
             0280   30300001 (001)         18.0          0.0          0.0          0.0         0.0
                    30500501 (001)        337.1          0.0          0.0          0.0         0.0
                    30500502 (001)      7,200.0          0.0          0.0          0.0         0.0
```

Figure 2.1.2.e. SCC Emissions Report

2.1.2.6 PLANT NAME REPORT

2.1.2.6.1 GENERAL DESCRIPTION

The "Plant Name Report" gives one line of information concerning each plant requested. Included are plant ID, plant name, plant contact, a count of points and SCC's, UTM coordinates, and the plant comment field.

2.1.2.6.2 RETRIEVALS AVAILABLE

The retrievals available for the "Plant Name Report" are the same as those for the "Point Source Report."

2.1.2.6.2 SORTS AVAILABLE

The same sorts are available for the "Plant Name Report" as for the "Point Source Report." The printout of the former, however, has a page break on county so that it is desirable to begin each sort selected with state/county. The two sorts recommended for use with the "Plant Name Report" are:

State/County/Plant Name/Plant ID/Point ID/SCC
State/County/Plant ID/Point ID/SCC

The first step is an alphabetical ordering by plant name and the second a numerical ordering by plant ID. If one of the above sorts is not used, the plant name may appear several times and the SCC count may be incorrect.

2.1.2.6.4 SAMPLE REPORT

A sample "Plant Name Report" for the State of Rhode Island and the County of Providence is presented in Figure 2.1.2.f—sorted by plant name.

```
FILE CREATED ON WEDNESDAY          MARCH 12, 1975                                              PAGE 41-0001

                         N A T I O N A L    E M I S S I O N S    D A T A    S Y S T E M

                PLANT NAME LISTING FOR ALL PLANTS WITH SCC EMITTING >OR =              0 TONS PER YEAR OF PARTICULATE

STATE (41):  RHODE ISLAND                     COUNTY (0320): PROVIDENCE CO

PLANT                                              PLANT        COUNT OF     UTM      COORD     P L A N T
 ID   P L A N T     N A M E                       CONTACT       PT  SCC      X         Y           C O M M E N T

0016 BACCALA & SONS,100 ARMENTO ST,JOHNSTON       R.BACCALA      1    1    293.8    4636.0
0011 BIRD & SON, DEXTER ROAD,PHILIPSDALE,E PROVD  R.WILLIAMS     2    2    303.3    4634.2
0025 BLACKSTONE VALLEY PWR PLANT, PAWTUCKET       MR.STEELMACH  12   12    302.3    4637.5
0022 BRANCH RIVER WOOL,GREAT RD,N.SMITHFIELD      G.WARLOP       3    3    288.7    4657.4
0033 BROWN UNIVERSITY, PROVIDENCE                  MR REMY       1    3    300.5    4632.9
0032 BROWN&SHARPE,WATERMAN AVE,PROVIDENCE         GREENSLADE     1    2    299.0    4633.6
```

Figure 2.1.2.f. Plant Name Report

2.1.2.7 EMISSIONS/AIR QUALITY REPORT

2.1.2.7.1 GENERAL DESCRIPTION

The "Emissions/Air Quality Report" presents AQCR emissions and air quality data in the same report. The report heading includes the NEDS date of creation, the AQCR population and land area, and the priority of the AQCR for each of the five criteria pollutants. The report is then divided into two tables.

First, the total emissions in tons per year are printed for each of the five criteria pollutants, along with point source and area source emission subtotals. Then, in the air quality table, a line is printed giving air quality data for each of the years requested. These data include the number of stations used, the time intervals measured, the maximum value, and the maximum arithmetic or geometric mean for each of the five criteria pollutants.

2.1.2.7.2 RETRIEVALS AVAILABLE

Retrievals by AQCR are available for the year span requested.

2.1.2.7.3 SORTS AVAILABLE

The output is sorted in the same sequence as requested.

2.1.2.7.4 SAMPLE REPORT

A sample "Emissions/Air Quality Report" for the AQCR, Metropolitan Providence, is presented in Figure 2.1.2.g.

```
DATE: 05-07-75                              EMISSION/AIR QUALITY REPORT FOR                                  PAGE    1
                                            AQCR(120):METROPOLITAN PROVIDENCE

                                            NEDS DATA OF CREATION : WEDNESDAY      MARCH 12, 1975
                                            AQCR POPULATION (1970 CENSUS):     1,645,380
                                            LAND AREA OF AQCR:        989   SQ-MILES.

                     PARTICULATE        SULFUR OXIDES         NITROGEN OXIDES         HYDROCARBONS         CARBON MONOXIDE          OZONE OR TOTAL OX

PRIORITY OF AQCR          1                   1                      1                                            1                        1

EMISSIONS (TONS/YEAR)
---------------------
 POINT SOURCES         9,650             161,171                 56,241                 5,016                 17,281
 AREA SOURCES         15,284              32,595                 78,967               143,657                613,334

 TOTAL SOURCES        24,934             193,766                135,208               148,673                630,615

------------------------------------------------------------------------------------------------------------------------------------------------
AIR QUALITY   TOTAL SUSP PART  :   SULFUR DIOXIDE    :  NITROGEN DIOXIDE   :  TOTAL HYDROCARBONS   :   CARBON MONOXIDE    :  OZONE OR TOTAL OX
-----------:     UG/M**3       :      UG/M**3        :      UG/M**3        :       UG/M**3         :      MG/M**3         :      UG/M**3
           :NO  MAX   I MAX   I:NO  MAX   I MAX    I:NO  MAX   I MAX    I:NO  MAX    I MAX     I:  NO  MAX   I MAX    I:  NO  MAX   I MAX    I
    YEAR   :STA VALUE N GEP   N:STA VALUE N ARITH  N:STA VALUE N ARITH  N:STA VALUE  N N ARITH N:  STA VALUE N ARITH  N:  STA VALUE N ARITH  N
           :          T MEAN  T:          T MEAN   T:          T MEAN   T:           T   MEAN  T:            T MEAN   T:            T MEAN   T
    1957   : 1   233  7   112 7:  0    0         0 :  0    0         0 :  0    0           0 :  0     0          0 :  0     0          0
    1958   : 3   301  7   124 7:  0    0         0 :  0    0         0 :  0    0           0 :  0     0          0 :  0     0          0
    1959   : 6   284  7    89 7:  0    0         0 :  0    0         0 :  0    0           0 :  0     0          0 :  0     0          0
```

Figure 2.1.2.g. Emission/Air Quality Report

EMISSIONS BY SCC REPORT

General Description

This report summarizes, by SCC, the calculated emissions for the five major pollutants (particulate, nitrogen oxides, sulfur oxides, hydrocarbons and carbon monoxide). All data selected are summarized by SCC and total emissions are provided for the four parts of each SCC. The report also gives the number of records for each SCC, for both complete SCC's and component parts, and total process throughput for each complete SCC (Parts I + II + III + IV).

Retrievals Available

Generally, only reports by nation, state, AQCR or county will be meaningful. Should the need exist, any of the following retrieval options are available:

a. State
b. AQCR
c. County
d. Plant
e. Point
f. Ownership Code
g. SIC
h. Emissions Estimation Method

i. SCC (I, I+II, I+II+III, I+II+III+IV)
j. Sources emitting more than x tons of any one pollutant
k. Any combinations of the above

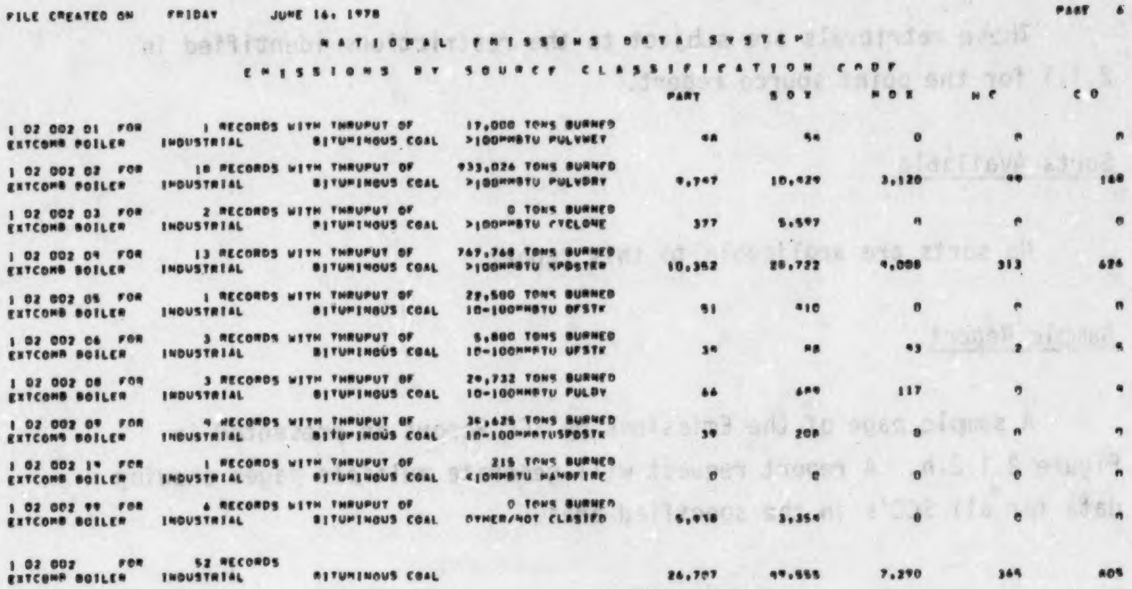
These retrievals are subject to the restrictions identified in 2.1.1 for the point source report.

Sorts Available

No sorts are applicable to this report.

Sample Report

A sample page of the Emissions by SCC Report is presented in Figure 2.1.2.h. A report request will generate multiple pages showing data for all SCC's in the specified area.



```
FILE CREATED ON    FRIDAY      JUNE 16, 1978                                                              PART  6
                          NATIONAL EMISSIONS DATA SYSTEM
                       EMISSIONS BY SOURCE CLASSIFICATION CODE
                                                                       PART      SOX      NOX      HC      CO

1 02 002 01  FOR        1 RECORDS WITH THRUPUT OF      17,000 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   >100MMBTU PULVWET      48       58        0        0       0

1 02 002 02  FOR       18 RECORDS WITH THRUPUT OF     933,026 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   >100MMBTU PULVDRY   9,747   10,429    3,120       49     168

1 02 002 03  FOR        2 RECORDS WITH THRUPUT OF           0 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   >100MMBTU CYCLONE     377    5,597        0        0       0

1 02 002 04  FOR       13 RECORDS WITH THRUPUT OF     767,768 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   >100MMBTU SPDSTKR  10,352   28,722    4,008      313     626

1 02 002 05  FOR        1 RECORDS WITH THRUPUT OF      22,500 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   10-100MMBTU OFSTK      51      410        0        0       0

1 02 002 06  FOR        3 RECORDS WITH THRUPUT OF       5,800 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   10-100MMBTU UFSTK      34       88       43        2       5

1 02 002 08  FOR        3 RECORDS WITH THRUPUT OF      20,732 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   10-100MMBTU PULDY      66      689      117        0       4

1 02 002 09  FOR        4 RECORDS WITH THRUPUT OF      35,625 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   10-100MMBTUSPDSTK      39      208        0        0       0

1 02 002 14  FOR        1 RECORDS WITH THRUPUT OF         215 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   <10MMBTU HANDFIRE       0        0        0        0       0

1 02 002 99  FOR        6 RECORDS WITH THRUPUT OF           0 TONS BURNED
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL   OTHER/NOT CLASIFD   5,918    3,354        0        0       0

1 02 002     FOR       52 RECORDS
EXTCOMB BOILER    INDUSTRIAL       BITUMINOUS COAL                      26,707   49,555    7,290      365     805
```

Figure 2.1.2-h Emissions by SCC Report

The Storage and Retrieval of Aerometric Data (SAROAD) System was one of the two original components of AEROS. The SAROAD system provides for the storage and retrieval of air quality and meteorological data and generates air quality data reports in three categories:

1. Raw Data Reports
2. Summary Reports
3. Management Reports

The raw data reports list the actual stored data on pollutant concentrations in the ambient atmosphere. They give the geographic location of the observations, as specified by the Site Code; the times and averaging periods of the data; and the method of data collection and analysis. The eight raw data reports described below are:

1. Raw data for less than 24 hour averaging periods
2. Raw data for sampling periods equal to or greater than 24 hours
3. Standards Listing
4. Site Description Inventory
5. Raw data in SAROAD format
6. Meteorological Raw Data Report and Plot
7. Raw Data validation report
8. Site File Plot

The summary reports give annual and quarterly summaries and frequency distributions of the air quality data and provide some analysis capabilities. The five summary reports described below are:

1. Yearly Frequency Distribution
2. Quarterly Frequency Distribution
3. Yearly Report by Quarters
4. Standards Violation Summary and Select Card Generation
5. Trend Plotting

The management reports are designed to provide information on the status of the data contained in the SAROAD files, as well as on the activities of the data collection sites. These reports also are to provide inventories of the data available from the SAROAD system. The six management reports described herein are:

1. Inventory by Site
2. Inventory by Pollutant
3. Inventory by Pollutant within State
4. Summary Report of Valid Data
5. Summary Report of Monitoring Activity
6. Active Site Report

From the overall system point of view, SAROAD may be thought of as being divided into two major subsystems: the SAROAD site file with its associated information, and the SAROAD Data File consisting mainly of air quality data of several varieties.

The SAROAD site file contains descriptive information on the sampling site and its environment. This information includes the address of the site; the type of surveillance carried on at the site, whether

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Report Capabilities	**SECTION** 2	**CHAPTER** 3	**SUBJECT** 0
NATIONAL AIR DATA BRANCH	**CHAPTER** Air Quality Data (SAROAD)	**DATE** 3/1/79 Update III-2		**PAGE** 7
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT**			

Table 2.3.0.a SUMMARY OF SAROAD RETRIEVALS

Report	Nationwide	State	State/Area	State/Area/Site	County	AQCR	Year	Year/Quarter	Year/Month	Pollutant	Pollutant/Method	Agency/Project	Any Combination of These	Several Combinations of These
Raw Data Reports														
Raw Data Less Than 24 Hours	X	X	X	X			X		X	X	X	X	X	
Raw Data Listing Greater Than or Equal to 24 Hours	X	X	X	X	X	X	X		X	X	X	X	X	
Standards Reports		X	X	X	X	X	X		X	X	X	X	X	
Site Description Inventory	X	X	X	X	X	X						X	X	
Raw Data in SAROAD Format		X	X	X	X	X	X		X	X	X	X		X
Meteorological Raw Data Report and Plot		X	X	X			X	X	X	X	X	X		
Raw Data Validation Report		X	X	X	X	X	X		X	X	X	X	X	
Site File Plot		X			X	X							X	
Summary Reports														
Yearly Frequency Distribution	X	X	X	X	X	X	X		X	X	X	X		X
Quarterly Frequency Distribution	X	X	X	X	X	X	X		X	X	X	X		X
Yearly Report by Quarters	X	X	X	X	X	X	X		X	X	X	X		X
Standards Violation Summary		X	X	X	X	X	X			X	X	X	X	
Trend Plotting		X	X	X			X		X	X	X	X		
Management Reports														
Inventory by Site	X	X												
Inventory by Pollutant	X	X								X				
State Inventory by Pollutant	X	X								X				
Summary Report of Valid Data	X	X	X									X	X	
Summary of Monitoring Activity	X						X	X						
Active Site Report		X	X	X	X	X	X			X	X	X		X

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Report Capabilities	**SECTION** 2	**CHAPTER** 3	**SUBJECT** 1
NATIONAL AIR DATA BRANCH	**CHAPTER** Air Quality Data	**DATE** 3/1/79 Update III-2		**PAGE** 1
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT** Raw Data Reports			

RAW DATA LESS THAN 24 HOURS

General Description

This report lists the hourly observations of pollutant concentrations in 24 columns, 1 line per day, 1 month per page. The report may also be used, with suitable modifications in format, for data recorded for 2-, 3-, 4-, 6-, 8-, and 12-hour intervals. The heading of the report contains the name of the pollutant; the pollutant/method code; the units used; the method of collection and analysis; the name of the state; the area; the site name and address; the complete site, agency, and project code; the month and year; and an identifier giving the averaging period of the observational data (for example, "1-hour data listing"). To the left of the 24-column body of the report is a column giving the days of the month; to the right are columns for the daily mean values and the number of observations made each day. Below the row for the last day of the month are three other rows, one for the average values for each hour, one for the numbers of observations made at each hour throughout the month, and one for the maximum value occurring at each hour. In the lower righthand corner are the average value for the entire month, the total number of observations for the month, and the maximum value that occurred in the month. The report is also capable of creating 3-, 8-, 12-, and 24-hour running averages from 1-hour data.

Retrievals Available

The SAROAD System employs a standard selection format for all retrievals for reports using the "SAROAD Standard Format Selection" procedure. The 1-Hour Data Listing may be retrieved by the following selection keys:

a. Nationwide
b. State
c. State/Area
d. State/Area/Site
e. AQCR
f. Year
g. Year/Month
h. Pollutant
i. Pollutant/Method
j. Agency/Project
k. Any combination of these keys

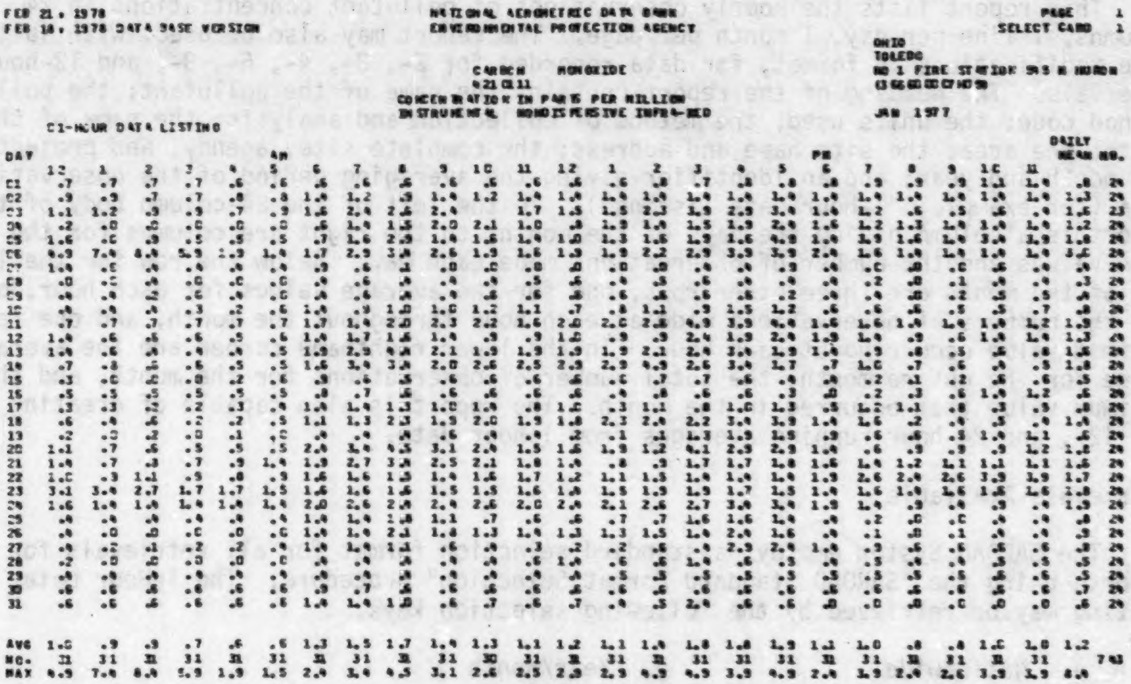
The multiple items listed above indicate that the retrieval may not be effected for the "Area" key without also specifying the "State" key, and so on.

Sorts Available

There are no optional sorts available. Data are printed in ascending order by site ID and within site by pollutant.

Sample Report

Figure 2.3.1.a shows a sample of this report for carbon monoxide measurements at a site in Toledo, Ohio.

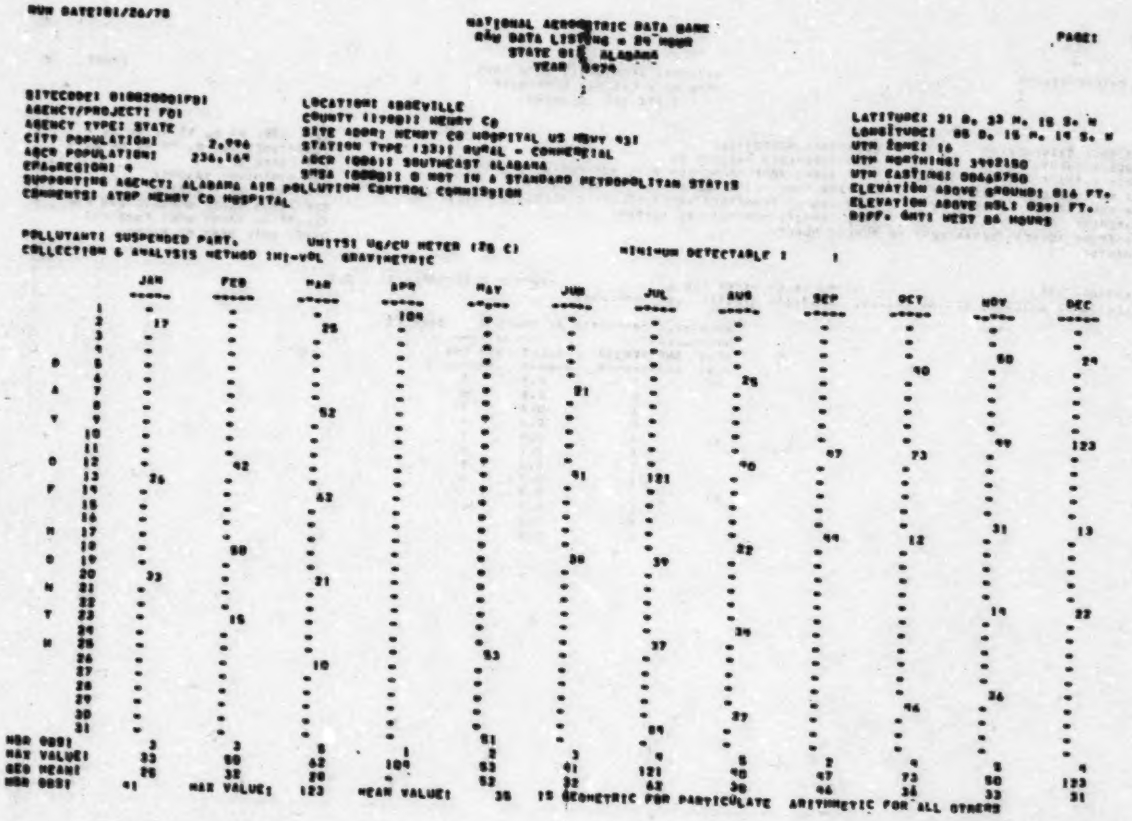


```
FEB 21, 1978                       NATIONAL AEROMETRIC DATA BANK                         PAGE        1
FEB 18, 1978 DATA BASE VERSION     ENVIRONMENTAL PROTECTION AGENCY                SELECT CARD        1
                                                                      OHIO
                                                                      TOLEDO
                                      CARBON    MONOXIDE              NO 1 FIRE STATION 545 N HURON
                                      42101 11                        366600007H05
                                 CONCENTRATION IN PARTS PER MILLION
                                 INSTRUMENTAL  NONDISPERSIVE INFRA-RED  JAN 1977

     01-HOUR DATA LISTING
```

Figure 2.3.1-a Raw Data Less Than 24 Hours Report

ENVIRONMENTAL PROTECTION AGENCY	SECTION Report Capabilities	SECTION 2	CHAPTER 3	SUBJECT 1
NATIONAL AIR DATA BRANCH	CHAPTER Air Quality Data	DATE		PAGE
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	SUBJECT Raw Data Reports	3/1/79 Update III-2		5



```
RUN DATE: 01/26/78
                                      NATIONAL AEROMETRIC DATA BANK
                                      RAW DATA LISTING - 24 HOUR                                       PAGE:   1
                                         STATE 01  ALABAMA
                                           YEAR [illegible]

SITECODE: 010020001F01             LOCATION: ABBEVILLE
AGENCY/PROJECT: F01                COUNTY (1700): HENRY CO                         LATITUDE: 31 D. 33 M. 18 S. N
AGENCY TYPE: STATE                 SITE ADDR: HENRY CO HOSPITAL US HWY 431         LONGITUDE: 85 D. 15 M. 14 S. W
CITY POPULATION:      2,996        STATION TYPE (33): RURAL - COMMERCIAL           UTM ZONE: 16
AQCR POPULATION:    236,164        AQCR (006): SOUTHEAST ALABANA                   UTM NORTHING: 3492180
EPA REGION: 4                      SMSA (0000): 0 NOT IN A STANDARD METROPOLITAN STATIS   UTM EASTING: 00648750
SUPPORTING AGENCY: ALABAMA AIR POLLUTION CONTROL COMMISSION                        ELEVATION ABOVE GROUND: 016 FT.
COMMENTS: ATOP HENRY CO HOSPITAL                                                   ELEVATION ABOVE MSL: 0391 FT.
                                                                                   DIFF. GMT: WEST 06 HOURS

POLLUTANT: SUSPENDED PART.         UNITS: UG/CU METER (25 C)          MINIMUM DETECTABLE :     1
COLLECTION & ANALYSIS METHOD :HI-VOL  GRAVIMETRIC

           JAN    FEB    MAR    APR    MAY    JUN    JUL    AUG    SEP    OCT    NOV    DEC
          -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----  -----
       1    -      -      -     104     -      -      -      -      -      -      -      -
       2   17      -     25      -      -      -      -      -      -      -      -      -
       3    -      -      -      -      -      -      -      -      -      -      -      -
       4    -      -      -      -      -      -      -      -      -      -     60     24
   D   5    -      -      -      -      -      -      -      -      -     40      -      -
       6    -      -      -      -      -      -      -     25      -      -      -      -
   A   7    -      -      -      -      -     21      -      -      -      -      -      -
       8    -      -     52      -      -      -      -      -      -      -      -      -
   Y   9    -      -      -      -      -      -      -      -      -      -      -      -
      10    -      -      -      -      -      -      -      -      -      -     44    123
      11    -      -      -      -      -      -      -      -     47     73      -      -
   O  12    -     42      -      -      -      -      -     40      -      -      -      -
      13   26      -      -      -      -     41    121      -      -      -      -      -
   F  14    -      -     62      -      -      -      -      -      -      -      -      -
      15    -      -      -      -      -      -      -      -      -      -      -      -
      16    -      -      -      -      -      -      -      -      -      -     31     13
   M  17    -      -      -      -      -      -      -      -     44     12      -      -
      18    -     50      -      -      -      -      -     22      -      -      -      -
   O  19    -      -      -      -      -     30     39      -      -      -      -      -
      20   33      -     21      -      -      -      -      -      -      -      -      -
   N  21    -      -      -      -      -      -      -      -      -      -      -      -
      22    -      -      -      -      -      -      -      -      -      -     19     22
   T  23    -     15      -      -      -      -      -      -      -      -      -      -
      24    -      -      -      -      -      -      -     34      -      -      -      -
   H  25    -      -      -      -     53      -     37      -      -      -      -      -
      26    -      -     10      -      -      -      -      -      -      -      -      -
      27    -      -      -      -      -      -      -      -      -      -      -      -
      28    -      -      -      -      -      -      -      -      -      -     26      -
      29    -      -      -      -      -      -      -      -      -     46      -      -
      30    -      -      -      -      -      -      -     27      -      -      -      -
      31    -      -      -      -     51      -     89      -      -      -      -      -
NBR OBS:    3      3      5      1      2      3      4      5      2      4      5      4
MAX VALUE: 33     50     62    104     53     41    121     40     47     73     60    123
GEO MEAN:  26     32     28      -     52     32     62     30     46     36     33     31
NBR OBS:    41     MAX VALUE:   123     MEAN VALUE:    35   IS GEOMETRIC FOR PARTICULATE  ARITHMETIC FOR ALL OTHERS
```

Figure 2.3.1-b Raw Data Listing, 24 Hour Report

```
RUN DATE:01/26/78                                          NATIONAL AEROMETRIC DATA BANK                                               PAGE:  2
                                                            RAW DATA LISTING COMPOSITE
                                                              STATE 01:  ALABAMA

SITECODE: 011680001A01          LOCATION: HUNTSVILLE                                                      LATITUDE: 34 D. 43 M. 50 S. N
AGENCY/PROJECT: A01             COUNTY (2240): MADISON CO                                                 LONGITUDE: 086 D. 34 M. 50 S. W
AGENCY TYPE: EPA/ATMOS. SURV.   SITE ADDR: ROOF OF HEALTH BLDG 304 EUSTIS AVENUE                          UTM ZONE: 16
CITY POPULATION:     137,802    STATION TYPE (131): CENTER CITY - COMMERCIAL                              UTM NORTHING: 3843054
AQCR POPULATION:     971,933    AQCR (007): TENNESSEE RIVER VALLEY-CUMBERLAND MOUNTAINS                   UTM EASTING:    539170
EPA-REGION: 4                   SMSA (3440): HUNTSVILLE, ALABAMA                                          ELEVATION ABOVE GROUND: 020 FT.
SUPPORTING AGENCY: DEPARTMENT OF PUBLIC HEALTH                                                            ELEVATION ABOVE MSL: 0606 FT.
COMMENTS:                                                                                                 DIFF. GMT: WEST 06 HOURS

POLLUTANT: IRON                 UNITS: UG/CU METER (25 C)                  MINIMUM DETECTABLE :    0.1
COLLECTION & ANALYSIS METHOD HI-VOL  EMISSION SPECTRA (LOW TEMP ASH)

                                                   QUARTERLY COMPOSITE OF 24-HOUR     SAMPLES
                                                   ----------                -----------
                                                   YEAR  SMP PERIOD     VALUE  NBR SMP
                                                   ----  ----------  --------  -------
                                                    70        1         0.7       7
                                                              2         0.6       6
                                                              3         0.8       7
                                                              4         0.6       6
                                                    71        1         0.8       7
                                                              2         0.7       6
                                                              3         0.6       6
                                                              4         0.7       6
                                                    72        1         0.4
                                                              2         0.6
                                                              3         0.5
                                                              4         0.6
```

2.3.1-c Raw Data Listing, Composite Report

STANDARD REPORTS

General Description

This series of 11 reports shows, for each pollutant-site combination within the geographical region specified, the number of occasions within the period of time specified when the National Ambient Air Quality Standards (NAAQS) were violated. For those pollutants having both primary and secondary standards, numbers of violations are shown separately for each type of standard. The standard format site description information appears at the top of the sheet with the designation of pollutant-interval combination above it, along with the State Code and name and the valid date of the data. Below the site description data, the main body of the report consists of 28 columns of data (for the monthly reports) or 13 columns of data (for the yearly reports) containing the individual hourly or daily observations for the pollutant in question. Every time that the appropriate standard was exceeded, a symbol (* or +) is placed beside the observation so as to identify the time and date of the violation. For the monthly reports, the number of observations and the mean value are tabulated for each day at the right-hand side of the paper; and the number of observations, maximum value, and arithmetic mean are listed for each hour of the day at the bottom of each column. For yearly reports the same data are provided, but on a monthly basis. Below these figures are given the total number of observations, for the month (or year), the percentage of possible observations, the numbers of times that the respective standards were exceeded, the arithmetic or geometric mean and standard deviation, as appropriate, with accompanying statements as to whether the primary and secondard standards were met or exceeded (for those pollutants having standards based on those parameters), and, along the bottom of the page, the identifications by name of the methods of collection and analysis, together with a statement defining the time used (whether standard or daylight saving).

The following reports are available:

a. Particulate (total suspended particulates)
b. Sulfur dioxide, daily values
c. Sulfur dioxide, hourly values
d. Sulfur dioxide, 24-hour running averages
e. Sulfur dioxide, 3-hour running averages
f. Carbon monoxide, hourly averages
g. Carbon monoxide, 8-hour running averages
h. Total oxidants
i. Ozone
j. Nitrogen dioxide, daily values
k. Nitrogen dioxide, hourly values

Retrievals Available

The reports may be retrieved by the following selection criteria: State, area, site, agency, project, pollutant, method interval, begin date, end date, AQCR, and county.

Sorts Available

There are no optional sorts available.

Sample Report

Figure 2.3.1.d shows a sample yearly report for particulate sampling followed by a sample monthly report for 3-hour running averages for sulfur dioxide.

```
                                   P A R T I C U L A T E                                                   30301
AS OF JUNE 02, 1973    NATIONAL AEROMETRIC DATA BANK STANDARDS REPORT FROM JAN 1970 TO DEC 1970          ILLINOIS

                                                                                  LATITUDE:    N41 C. 53 M. 06 S.
                                     LOCATION: CHICAGO                            LONGITUDE: W067 D. 45 M. 40 S.
SITECODE: 141220006                  COUNTY(1540): COOK                           UTM ZONE: 16
AGENCY/PROJECT: H01                  SITE AQCR: AUSTIN HIGH SCHOOL 231 N PINE ST  UTM NORTHING:  4,637.0 KM.
AGENCY TYPE: CITY                    STATION TYPE (12): CENTER CITY - RESIDENTIAL UTM EASTING:      436.8 KM.
CITY POPULATION: 3,369,597           AQCR (C67): METROPOLITAN CHICAGO             ELEVATION ABOVE GROUND:  61 FT.
AQCS POPULATION: 7,762,473           SMSA (1600): CHICAGO, ILLINOIS               ELEVATION ABOVE MSL:    676 FT.
EPA-REGION: 5                                                                     TIME ZONE: WEST 06 HOURS
SUPPORTING AGENCY: DEPARTMENT OF ENVIRONMENTAL CONTROL CITY OF CHICAGO
COMMENTS:

       JAN 1970  FEB 1970  MAR 1970  APR 1970  MAY 1970  JUN 1970  JUL 1970  AUG 1970  SEP 1970  OCT 1970  NOV 1970  DEC 1970

    1      75 T         S         S     100 W      82 F         M         W         S     147 T     167+T         S         T
    2         F         M         M         T         S         T         T     111 S         W         F      78 M         W
    3         S     175+T         T         F         S      92 W      96 F         M         T         S         T         T
D   4     142 S         W         W     107+S         M         T         S         T     148 F         S         W         F
    5         M         T     140 T         S         T         F         S     109 W         S     115 M         T         S
A   6         T         F         F         M         W      98 S         M         T         S         T     121 F         S
    7     214+W         S         S     144+T     132 T         S         T         F         M         W         S         M
Y   8         T         S     110 S         W         F         M         W     101 S         T         T         S     409+T
    9         F         M         M         T         S      80 T      85 T         S         W     122 F         M         W
   10     157+S         T         T     203+F      83 S         W         F         M     261*T         S     117 T         T
O  11         S         W     101 W         S         M         T         S     107 T         F         S         W         F
   12         M     224+T         T         S         T      69 F      58 S         W         S         M         T     177+S
F  13     362+T         F         F         M      91 W         S         M         T     101 S      65 T         F         S
   14         W         S     142 S         T         T         S         T     156+F         M         W      81 S         M
   15         T      96 S         S         W         F         M     150 W         S         T         T         S         T
   16     381 F         M         M     102 T      80 S         T         T         S     139 W         F         M     192+W
M  17         S         T     199+T         F         S         W         F         M         T     148 S         T         T
   18         S     185+W         W         S         M         T     109 S         T         F         S     138 W         F
O  19         M         T         T       8 S     115+T         F         S         W     107 S         M         T         S
   20         T         F     155+F         M         W         S         M      84 T         S         T         F     253+S
N  21         W     219+S         S         T         T         S      75 T         F         M     150 W         S         M
   22         T         S         S      78 W      79 F         M         W         S      59 T         T      58 S         T
T  23         F         M         M         T         S         T         T      59 S         W         F         M         W
   24         S         T         T         F         S     132 W      86 F         M         T      54 S         T     226+T
H  25      97 S         W         W     103 S         M         T         S         T      67 F         S         W         F
   26         M         T     200+T         S         T         F         S     138 W         S         M         T         S
   27         T     194+F         F         M         W     113 S         M         T         S         T         F         S
   28     130 W         S         S     179+T      91 T         S         T         F         M         W         S         M
   29         T                  50 S         W         F         M         W      74 S         T     137 T         S         T
   30         F                   M         T         S     130 T     113 T         S         W         F     200+M         W
   31     117 S                   T                   S                   F         M                   S                   T
 NUMBER     9         0         8         9         8         7         8         9         8         8         7         5
 MAXIMUM  335       224       284       203       169       132       150       156       261       167       200       409
 GEO MEAN 149       172       129       127        91        99        93       100       116       112       105       240

TOTAL SAMPLES =                                88     1 STARRED (*) ITEMS EXCEEDED THE PRIMARY   STANDARD OF 260 MICROGRAMS PER CUBIC METER
PERCENT OF POSSIBLE OBSERVATIONS =           25.2    25 PLUSSED (+) ITEMS EXCEEDED THE SECONDARY STANDARD OF 150 MICROGRAMS PER CUBIC METER

GEOMETRIC MEAN =                              171       PRIMARY STANDARD OF 75 MICROGRAMS PER CUBIC METER WAS EXCEEDED
GEOMETRIC STANDARD DEVIATION =                100    SECONDARY STANDARD OF 60 MICROGRAMS PER CUBIC METER WAS EXCEEDED
                                                                                                           ALL TIMES ARE STANDARD TIME
COLLECTION METHOD: HI-VOL                             ANALYSIS METHOD: GRAVIMETRIC
```

Figure 2.3.1.d. Standards Report

```
AS OF JUNE 02, 1973                       S U L F U R  D I O X I D E
                                              ----3 HOUR AVERAGE                                                  30301
                           NATIONAL AEROMETRIC DATA BANK STANDARDS REPORT FOR MARCH, 1969                        ILLINOIS

SITECCDE: 141220006                LOCATION: CHICAGO                                        LATITUDE:   N41 C. 53 M. 06 S.
AGENCY/PROJECT: H01                COUNTY(1540): COOK                                       LONGITUDE: W067 D. 45 M. 40 S.
AGENCY TYPE: CITY                  SITE AQCR: AUSTIN HIGH SCHOOL 231 N PINE ST              UTM ZONE: 16
CITY POPULATION: 3,369,597         STATION TYPE (12): CENTER CITY - RESIDENTIAL             UTM NORTHING:  4,637.0 KM.
AQCS POPULATION: 7,762,473         AQCR (067): METROPOLITAN CHICAGO                         UTM EASTING:       436.8 KM.
EPA-REGION: 5                      SMSA (1600): CHICAGO, ILLINOIS                           ELEVATION ABOVE GROUND:  61 FT.
SUPPORTING AGENCY: DEPARTMENT OF ENVIRONMENTAL CONTROL CITY OF CHICAGO                      ELEVATION ABOVE MSL:    676 FT.
COMMENTS: TAMN PARA MONITORED: SO2, WD, WS, COH, NO2, NO                                    TIME ZONE: WEST 06 HOURS
          CASN PARA MONITORED SO2 (WEST-GAEKE) TOT SUS PART (HI-VOL)
        MDNT     1     2     3     4     5     6     7     8    9   10   11 NOON    1    2    3    4    5    6    7    8    9   10   11   #  MEAN

  1 S    13    13    17    28    65    94    98    79    59   57   90  162  203  238  273  384  458  478  496  531  581  507  462  249  24  234
  2 S   160   155   199   247   365   465   555   537   419  303  223  212  186  196  229  253  275  297  293  312  369  365  367  236  24  309
  3 M   239   221   207   330   483   631   635   600   476  376  238  231  240  325  365  362  314  258  245  277  301  284  259  167  24  339
  4 T   108   111    96    94   144   253   371   382   338  288  229  177  144  103   61   44   33   26   48   55   55   33   26  400  24  155
  5 W   747   784   867  1092  1260  1327 +1204  1087   877  650  515  491  469  476  452  500  535  605  624  668  642  579  527  452  24  723
  6 T   465   458   515   574   694   777   753   544   286   96   46   24   17   50  133  238  262  295  323  384  391  325  298  167  24  338
  7 F   124   175   275   415   539   714   806   814   559  325  138  114   98   96   96  120  273  489  705  725  642  524  475  445  24  401
  8 S   458   448   395   378   362   543   475   364    92   24   13   13   13   13   52  124  214  251  247  170  144  127  164  111  24  215
  9 S    69    63    55    50   247   417   565   544   511  469  356  225  105   35   22   17   13   98  288  533  646  622  560  501  24  290
 10 M   521   535   603   679   834   937   926   821   730  573  370  347  312  332  393  424  450  417  400  362  343  341  344  344  24  510
 11 T   341   360   354   406   509   666   729   701   605  500  450  489  541  552  515  478  463  467  520  609  668  703  691  740  24  544
 12 W   681   718   742   987  1253  1421 +1240   893   585  539  485  406  258  177  153  135  142  138  124  138  179  288  331  851  24  514
 13 T  1264  1314 +1419 +1631 +1845 +2046 +1858 +1446 +1016  756  651  531  526  522  500  493  517  533  528  581  672  633  589  337  24  929
 14 F   293   290   299   339   517   605   592   528   476  465  467  474  458  454  485  552  548  561  535  572  668  725  806  612  24  914
 15 S   553   559   622   751   943  1109  1127   954   696  485  498  570  596  515  456  456  565  699  873  961  928  782  665  648  24  722
 16 S   626   592   535   729  1046  1314 +1238  1009   742  596  500  491  480  439  367  321  282  269  273  314  341  338  318  327  24  389
 17 M   327   314   314   410   561   664   710   672   592  493  448  509  533  533  465  437  391  362  323  308  309  336  350  360  24  443
 18 T   350   347   373   557   982  1380 +1509 +1236   851  579  441  458  437  498  465  461  391  380  373  371  378  389  406  318  24  587
 19 W   168   145   121   196   325   434   443   354   258  214  205  201  168  138  114   85   61   31   17   13   13   13   13   13  24  156
 20 T    65   135   247   273   286   260   299   273   251  210  199  183  175  190  245  380  369  384  386  376  386  349  357  285  24  271
 21 F   275   293   297   371   502   614   622   563   472  432  400  386  295  179  103   68   44   35   31  109  288  579  737  789  24  352
 22 S   704   718   790   858  1013  1118  1116   891   598  371  273  260  242  221  183  199  242  290  317  288  249  210  203  226  24  487
 23 S   278   253   227   231   345   448   452   376   286  260  236  240  227  218  214  203  153   98   46   33   22   28   29   29  24  231
 24 M                                                                            13   13   13   22   35   48   55   48   35   23   20  11   29
 25 T    26    26    26    26    26    26    26    35    44   52   57   68   96  124  146  159  203  264  306  371  410  441  422  319  24  154
 26 W   203   194   170   203   275   393   493   522   559  618  646  589  478  426  406  417  428  476  611  795  948  956  940  786  24  522
 27 T   701   727   808  1004  1297  1517 +1465 +1096   742  657  681  696  694  913  939  810  574  537  598  620  550  454  370  350  24  783
 28 F   275   284   308   426   539   620   570   405   378  312  247  242  277  332  430  467  576  622  675  568  496  474  531  485  24  440
 29 S   354   347   290   338   397   507   559   572   526  483  472  382  255  170  251  365  404  413  402  369  393  395  452  403  24  398
 30 S   380   345   336   365   430   450   485   480   502  465  450  391  365  356  365  371  345  356  362  391  461  487  534  442  24  413
 31 M   403   382   369   415   565   688   900   867   801  541  426  365  367  358  365  360  386  406  421  421  430  417  426  334  24  476

     #    30    30    30    30    30    30    30    30    30   30   30   30   30   31   31   31   31   31   31   31   31   31   31   31
   MAX  1264  1314  1419  1631  1845  1446  1858  1446  1016  756  681  696  694  913  939  810  576  699  873  961  948  956  940  851
  MEAN   373   377   396   482   622   748   763   657   511  406  348  331  309  297  299  311  320  341  369  396  418  411  409  379

TOTAL SAMPLES =                          731       STARRED (*) ITEMS EXCEEDED THE PRIMARY   STANDARD OF 0,000 MICROGRAMS PER CUBIC METER
PERCENT OF POSSIBLE OBSERVATIONS = 98.2       14 PLUSSED (+) ITEMS EXCEEDED THE SECONDARY STANDARD OF 1,300 MICROGRAMS PER CUBIC METER

ARITHMETIC MEAN =                        427       PRIMARY STANDARD OF 000 MICROGRAMS PER CUBIC METER WAS MET
ARITHMETIC STANDARD DEVIATION =          296     SECONDARY STANDARD OF 000 MICROGRAMS PER CUBIC METER WAS MET
```

Figure 2.3.1.d (continued). Standards Report

SITE DESCRIPTION INVENTORY

General Description

This report lists, in a standard site description format, information concerning the environment and operating characteristics of the given sampling site or sites. The site descriptive information is arranged in three blocks across the page, each block containing six to eight lines of information. The various codes as set forth in Volume V, AEROS Manual of Codes, are provided for the various station parameters and each is defined by name. These codes include those for the State, area, agency/project, EPA Region, county, station type, AQCR, SMSA, and UTM zone. The actual numerical values are also provided for the city and AQCR populations, as well as for various geographic parameters including the latitude and longitude of the sampling site, its UTM grid coordinates, the elevation of the sampling probe above the ground and above MSL, and the time differential between local standard time and GMT. In addition, the name of the location is given, along with the name of the supporting agency and any comments that may be appropriate.

Retrievals Available

The site description data can be retrieved on a State, area, site, agency, project, AQCR, and county.

Sorts Available

The report can be sorted by State, area, site, agency, project, county, and AQCR.

Sample Report

Figure 2.3.1.e shows a "Site Description Inventory" for two sites in the State of Rhode Island.

```
                                        NATIONAL AEROMETRIC DATA BANK                                        PAGE 41-0001
                                          SITE DESCRIPTION INVENTORY
                                           STATE (41): RHODE ISLAND

SITECODE: 410040001F01              LOCATION: BRISTOL                                         LATITUDE: 41 D. 40 M. 26 S. N
AGENCY/PROJECT: F01                 COUNTY (0060): BRISTOL CO                                 LONGITUDE:  71 D. 16 M. 18. S. W
AGENCY TYPE: STATE                  SITE ADDR:REYNOLDS ELEMENTARY SCHOOL                      UTM ZONE: 19
CITY POPULATION:      17,860        STATION TYPE (22): SUBURBAN - RESIDENTIAL                 UTM NORTHING: 4615800
AQCR POPULATION:  1,645,380         AQCR (120): METROPOLITAN PROVIDENCE                       UTM EASTING: 00310900
EPA-REGION: 1                       SMSA (6480): PROVIDENCE-PAWTUCKET-WARWICK, R.I.-MASS      ELEVATION ABOVE GROUND: 040 FT.
SUPPORTING AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH                                          ELEVATION ABOVE MSL: 0090 FT.
COMMENTS:                                                                                     DIFF. GMT: WEST 05 HOURS

SITECODE: 410065001F01              LOCATION: BURRILVILLE                                     LATITUDE: 41 D. 58 M. 9 S. N
AGENCY/PROJECT: F01                 COUNTY (0320): PROVIDENCE CO                              LONGITUDE: 71 D. 39 M. 48 S. W
AGENCY TYPE: STATE                  SITE ADDR: BURRILVILLE HIGH SCHOOL                        UTM ZONE: 19
CITY POPULATION:      10,087        STATION TYPE (22): SUBURBAN - RESIDENTIAL                 UTM NORTHING: 4649500
AQCR POPULATION:  1,645,380         AQCR (120): METROPOLITAN PROVIDENCE                       UTM EASTING: 00279300
EPA-REGION: 1                       SMSA (6480): PROVIDENCE-PAWTUCKET-WARWICK, R.I.-MASS      ELEVATION ABOVE FROUND: 020 FT.
SUPPORTING AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH                                          ELEVATION ABOVE MSL" 0370 FT.
COMMENTS:                                                                                     DIFF. GMT: WEST 05 HOURS
```

Figure 2.3.1.e. Site Description Inventory Report

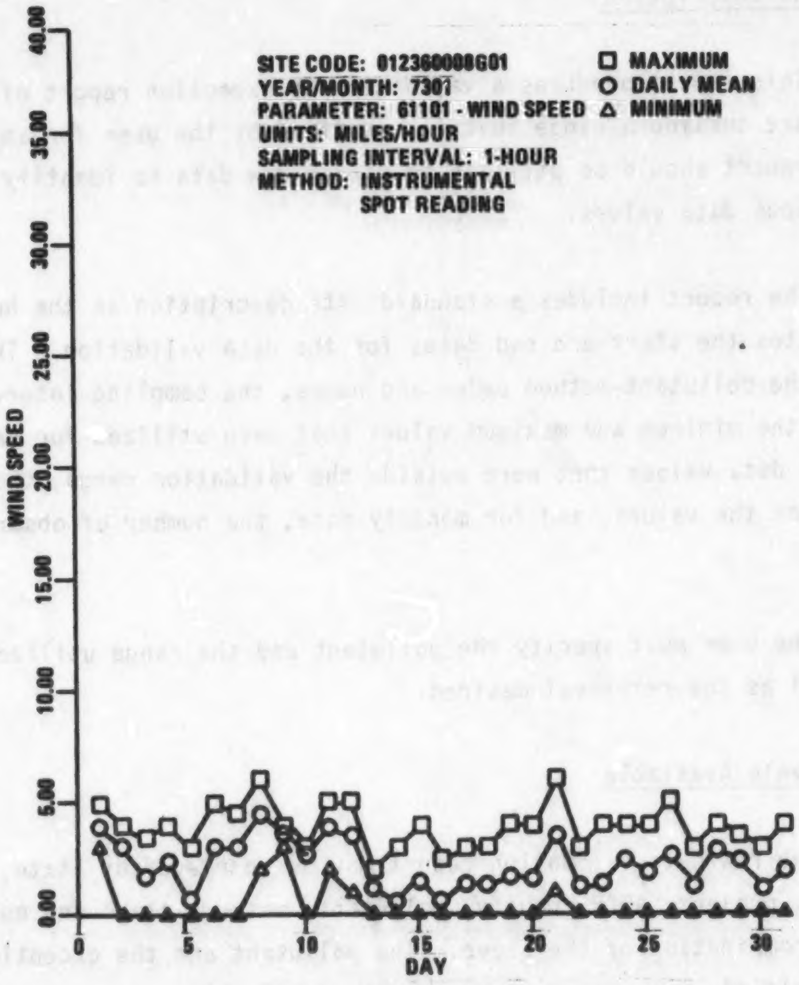


Figure 2.3.1-k. Meteorological raw data plot.

RAW DATA VALIDATION REPORT

General Description

This report produces a validation by exception report of raw data values that are outside a range that is specified by the user for any pollutant. This report should be utilized to screen raw data to identify possible anomalous data values.

The report includes a standard site description as the heading and also indicates the start and end dates for the data validation. The data reports list the pollutant-method codes and names, the sampling interval, the units name, the minimum and maximum values that were utilized for validation, the actual data values that were outside the validation range, the date and start hour for the values, and for monthly data, the number of observations for that month.

The user must specify the pollutant and the range utilized for validation as well as the retrieval desired.

Retrievals Available

The raw data validation report may be retrieved by State, area, site, agency, project, AQCR, county, pollutant, method, start and end date, or any valid combination of the above. The pollutant and the exception range must be specified.

Sorts Available

This report may be sorted in ascending or descending order by the following options: State, area, site, agency, project, AQCR, county, pollutant, method, interval, units, year, month, day, hour, and pollutant value.

Sample Report

Figure 2.3.1.1 is an example of the report for a site in California for ozone.

```
  DATE RUN 10/06/78                                 NATIONAL AEROMETRIC DATA BANK                                          PAGE      18
                                                      VALIDATION BY EXCEPTION

SITECODE  052680001                  LOCATION: FONTANA                                                 LATITUDE: 34 D. 06 M. 22 S. N
AGENCY/PROJECT: 101                  COUNTY    (6700):SAN BERNARDINO CO                                LONGITUDE:117D. 28 M. 52 S. W
AGENCY TYPE: DISTRICT                SITE ADDR: 14638 FOOTHILL BLVD                                    UTM ZONE: 11
CITY POPULATION:      20,673         STATION TYPE: RURAL - INDUSTRIAL                                  UTM NORTHING: 3773850
AQCR POPULATION:  9,806,000          AQCR (024): METROPOLITAN LOS ANGELES                              UTM EASTING: 00455635
EPA REGION: 9                        SMSA (6780):  RIVERSIDE-SAN BERNARDINO ONTARIO, CALIF             ELEVATION ABOVE GROUND: 020 FT.
SUPPORTING AGENCY: SAN BERNADINO APCD                                                                  ELEVATION ABOVE MSL: 1265 FT.
COMMENTS: ARB 36-170 START 6-73 KAISER STEEL 2 MI S W                                                  DIFF. GMT: WEST 08 HOURS

-----------------------------------------------------------------------------------------------------------------------------------
POLLUTANT                                          VALIDATION VALUES            EXCEPTION          OBS TIME            NUMBER OF
POLLUTANT-METHOD                                   MINIMUM   MAXIMUM              VALUE            YY-MM-DD-HH         OBSERVATION
METHOD
INTERVAL AND UNITS
-----------------------------------------------------------------------------------------------------------------------------------

OZONE                                               1.0000  500.0000              588.             76-07-05-17
44201-11                                                                          510.             76-07-06-14
INSTRUMENTAL  CHEMILUMINESCENCE                                                   529.             76-07-06-15
 1-HOUR      UG/CU METER (25 C)                                                   627.             76-07-06-16
                                                                                    0.             76-07-06-23
                                                                                    0.             76-07-07-04
                                                                                    0.             76-07-07-05
                                                                                  598.             76-07-07-12
                                                                                  529.             76-07-07-13
                                                                                  568.             76-07-07-14
                                                                                  588.             76-07-07-15
                                                                                  510.             76-07-07-16
                                                                                  549.             76-07-08-13
                                                                                  529.             76-07-08-14
                                                                                    0.             76-07-08-22
                                                                                    0.             76-07-08-23
                                                                                    0.             76-07-09-00
                                                                                    0.             76-07-09-01
                                                                                    0.             76-07-09-02
                                                                                    0.             76-07-09-03
                                                                                    0.             76-07-09-04
                                                                                    0.             76-07-09-05
                                                                                  510.             76-07-09-13
                                                                                    0.             76-07-09-21
                                                                                    0.             76-07-09-22
                                                                                    0.             76-07-09-23
                                                                                    0.             76-07-10-00
                                                                                    0.             76-07-10-01
                                                                                    0.             76-07-10-02
                                                                                    0.             76-07-10-03
                                                                                    0.             76-07-10-04
                                                                                    0.             76-07-10-05
                                                                                    0.             76-07-10-06
                                                                                    0.             76-07-10-07
                                                                                    0.             76-07-10-21
                                                                                    0.             76-07-10-22
```

Figure 2.3.1.1 Raw Data Validation Report

SITE PLOT PROGRAM

General Description

This program produces a plot of site locations on a longitude-latitude coordinate system on a TEXTRONIX terminal or a CALCOMP plotter. It also provides a control card listing and lists the sites which were not plotted due to missing data. The area is specified by up to 99 points which are accepted in order to form a polygon. Standard identifying information on the plot includes a request or supplied title, the State, county, and/or AQCR numbers and names for the area, the number of sites in the area, the number of sites plotted, and the number of points in the polygon. A scaling factor provided by the user determines the size of the rectangular grids on the plot. The size of specified area determines the length in degrees-minutes-seconds of the sides of the grid square. All sites which are selected are plotted in the rectangular grid, and the users-supplied points are used to draw the polygon on the grid. Each selected site is marked with an "X" and labeled, AA, AB, AC, ..., BA, BB, ..., . A cross reference table containing the codes for the label, state, area, site, agency, project, county, and AQCR is printed beside the plot.

Retrievals Available

The plot is generated for a geographical area specified by an valid combination of the following attributes: (1) State, (2) AQCR, (3) State-county, (4) State-AQCR, and (5) State-county-AQCR. In addition to the geographical area, the requestor must specify the latitude-longitude coordinates for the points of the polygon, a scaling factor for the plot, and a title for the plot. The scaling factor can vary from 1.0 to 10.0, and the product of the scaling factor for latitude or longitude times 7" is the length of the latitudinal or longitudinal axis.

Sorts Available

No sort options are available as each set of retrieval cards produces only one plot. Several sets of retrieval cards may be submitted in one complete request in the order desired.

Sample Report

Figure 2.3.1.m represents a plot for 43 sites selected by State-county for Jackson County, Alabama. A scaling factor of 1.0 was utilized for this plot.

```
        TEST 1  -  SELECT STATE AND COUNTY
GEOGRAPHIC AREA :

  STATE : 01 (ALABAMA)
  COUNTY : 1.20 (JACKSON CO)
  NO OF SITES FOUND IN THIS AREA :  43

NO OF SITES (X ) PLOTTED IN THIS RECTANGULAR AREA : 43

NO OF POINTS (◇ ) IN THE POLYGON :  4
```

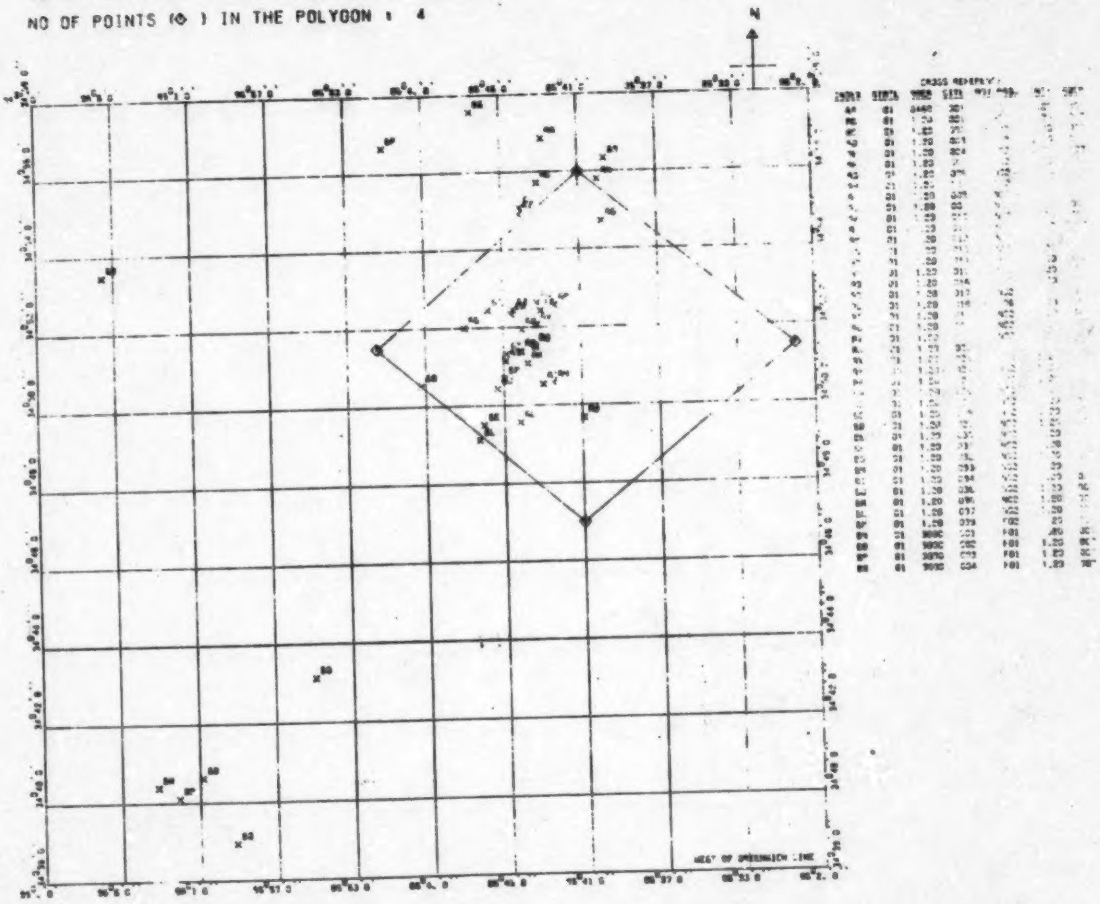
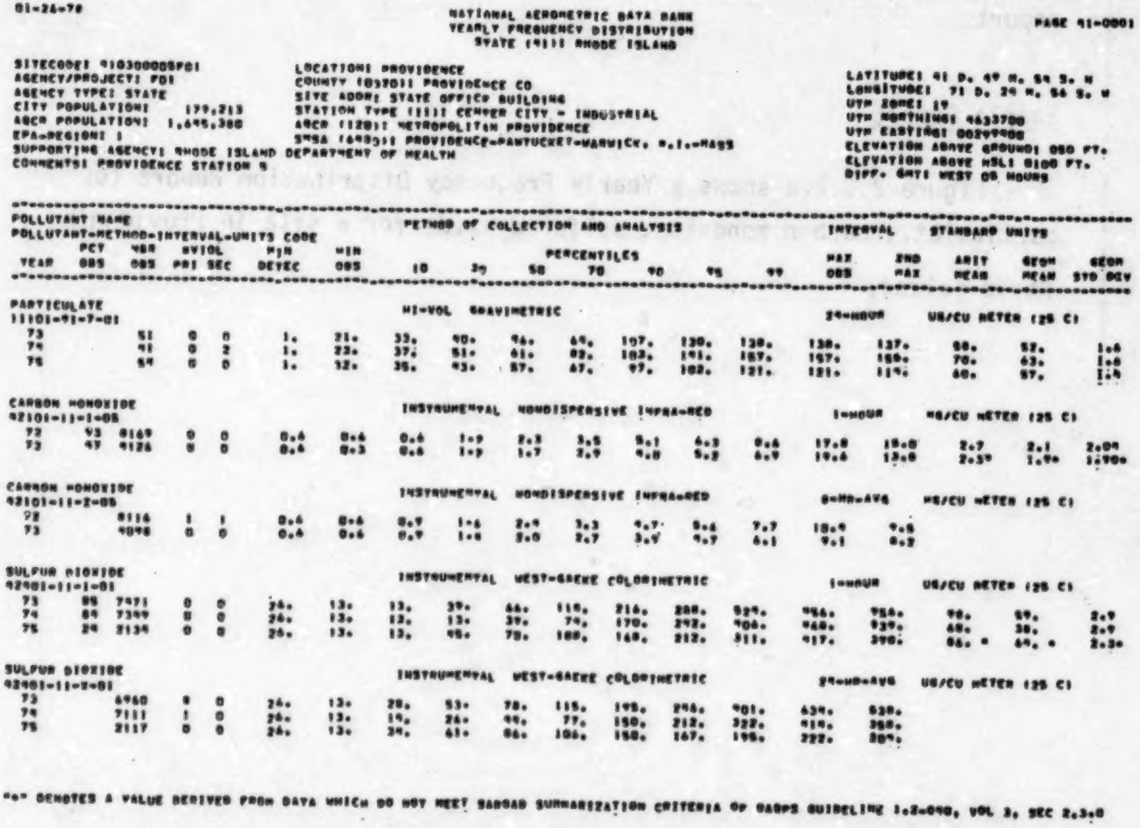


Figure 2.3.1-m Site Plot for Jackson County, Alabama

maximum observed value. Any number of sorts can be specified in any desired order, but certain sort combinations may produce a confusing report.

Sample Report

Figure 2.3.2.a shows a Yearly Frequency Distribution Report for particulate, carbon monoxide, sulfur dioxide for a site in Providence, Rhode Island.



```
01-26-79                                   NATIONAL AEROMETRIC DATA BANK
                                          YEARLY FREQUENCY DISTRIBUTION                                          PAGE 41-0001
                                            STATE (41): RHODE ISLAND

SITECODE: 410300005F01            LOCATION: PROVIDENCE
AGENCY/PROJECT: F01               COUNTY (0370): PROVIDENCE CO                              LATITUDE: 41 D. 49 M. 59 S. N
AGENCY TYPE: STATE                SITE ADDR: STATE OFFICE BUILDING                          LONGITUDE:  71 D. 24 M. 56 S. W
CITY POPULATION:     179,213      STATION TYPE (111): CENTER CITY - INDUSTRIAL              UTM ZONE: 19
AQCR POPULATION:  1,695,380       AQCR (120): METROPOLITAN PROVIDENCE                       UTM NORTHING: 4633700
EPA-REGION: 1                     SMSA (6480): PROVIDENCE-PAWTUCKET-WARWICK, R.I.-MASS      UTM EASTING: 00299400
SUPPORTING AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH                                        ELEVATION ABOVE GROUND: 050 FT.
COMMENTS: PROVIDENCE STATION 5                                                              ELEVATION ABOVE MSL: 0100 FT.
                                                                                            DIFF. GMT: WEST 05 HOURS

-*------------------------------------------------------------------------------------------------------------------------
POLLUTANT NAME                                METHOD OF COLLECTION AND ANALYSIS                INTERVAL    STANDARD UNITS
POLLUTANT-METHOD-INTERVAL-UNITS CODE
      PCT   NBR   #VIOL     MIN     MIN                        PERCENTILES                       MAX     2ND     ARIT    GEOM    GEOM
YEAR  OBS   OBS  PRI SEC   DETEC    OBS     10     30     50     70     90     95     99      OBS     MAX     MEAN    MEAN  STD DEV
-*------------------------------------------------------------------------------------------------------------------------

PARTICULATE                                   HI-VOL  GRAVIMETRIC                              24-HOUR     UG/CU METER (25 C)
11101-91-7-01
  73          51    0   0     1.     21.    33.    40.    46.    69.   107.   130.   130.    130.    137.     50.     52.     1.6
  74          41    0   2     1.     22.    37.    51.    61.    82.   103.   141.   187.    197.    150.     70.     63.     1.6
  75          54    0   0     1.     12.    35.    43.    57.    67.    97.   102.   121.    121.    114.     60.     57.     1.4

CARBON MONOXIDE                               INSTRUMENTAL  NONDISPERSIVE INFRA-RED             1-HOUR     MG/CU METER (25 C)
42101-11-1-08
  72    93  8169    0   0     0.6    0.6    0.6    1.9    2.3    3.5    5.1    6.3    8.6     17.8    15.0     2.7     2.1    2.09
  73    47  4126    0   0     0.4    0.3    0.6    1.9    1.7    2.9    4.8    5.2    6.9     19.6    13.8     2.3*    1.9*   1.90*

CARBON MONOXIDE                               INSTRUMENTAL  NONDISPERSIVE INFRA-RED          8-HR-AVG      MG/CU METER (25 C)
42101-11-2-08
  72        8116    1   1     0.6    0.6    0.9    1.6    2.4    3.3    4.7    5.6    7.7     10.9     9.5
  73        4098    0   0     0.4    0.6    0.9    1.4    2.0    2.7    3.9    4.7    6.1      9.1     8.2

SULFUR DIOXIDE                                INSTRUMENTAL  WEST-GAEKE COLORIMETRIC             1-HOUR     UG/CU METER (25 C)
42401-11-1-01
  73    85  7471    0   0     26.    13.    13.    39.    66.   119.   216.   288.   529.    956.    756.     90.     59.     2.9
  74    84  7349    0   0     26.    13.    13.    13.    39.    79.   170.   242.   406.    460.    439.     68.     38.     2.9
  75    24  2134    0   0     26.    13.    13.    45.    75.   108.   148.   212.   311.    417.    390.     86. *   69. *   2.3*

SULFUR DIOXIDE                                INSTRUMENTAL  WEST-GAEKE COLORIMETRIC          24-HR-AVG     UG/CU METER (25 C)
42401-11-2-01
  73        6960    0   0     26.    13.    28.    53.    78.   115.   195.   294.   401.    634.    530.
  74        7111    1   0     26.    13.    19.    26.    49.    77.   150.   212.   322.    414.    358.
  75        2117    0   0     26.    13.    34.    61.    86.   106.   150.   167.   198.    222.    209.

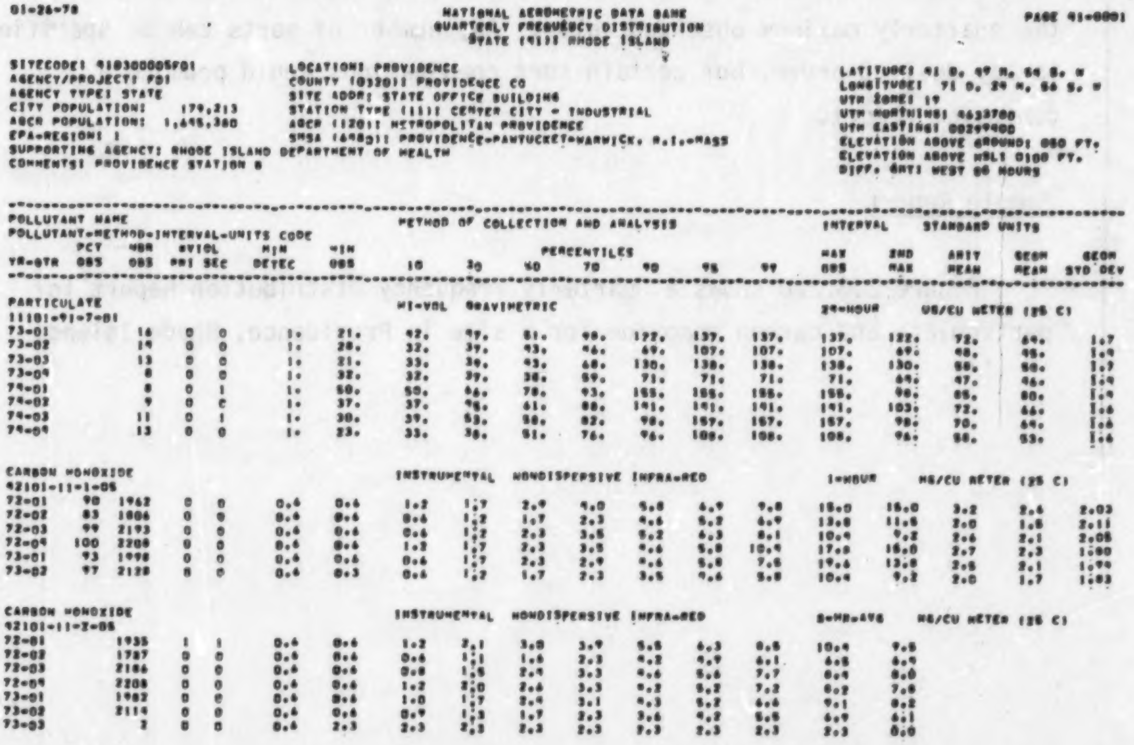
"*" DENOTES A VALUE DERIVED FROM DATA WHICH DO NOT MEET SAROAD SUMMARIZATION CRITERIA OF OAQPS GUIDELINE 1.2-090, VOL 3, SEC 2.3.0
```

Figure 2.3.2-a Yearly Frequency Distribution Report

value, and county code. For this report, the pollutant value sort is on the quarterly maximum observed value. Any number of sorts can be specified in any desired order, but certain sort combinations would produce a confusing report.

Sample Report

Figure 2.3.2.b shows a Quarterly Frequency Distribution Report for particulate and carbon monoxide for a site in Providence, Rhode Island.



```
01-26-79                                NATIONAL AEROMETRIC DATA BANK                                        PAGE 41-0001
                                       QUARTERLY FREQUENCY DISTRIBUTION
                                           STATE (41): RHODE ISLAND

SITECODE: 410300005F01            LOCATION: PROVIDENCE                                   LATITUDE: 41 D. 49 M. 54 S. N
AGENCY/PROJECT: F01               COUNTY (0320): PROVIDENCE CO                           LONGITUDE: 71 D. 24 M. 54 S. W
AGENCY TYPE: STATE                SITE ADDR: STATE OFFICE BUILDING                       UTM ZONE: 19
CITY POPULATION:     179,213      STATION TYPE (111): CENTER CITY - INDUSTRIAL           UTM NORTHING: 4632700
AQCR POPULATION:   1,645,380      AQCR (120): METROPOLITAN PROVIDENCE                    UTM EASTING: 00299400
EPA-REGION: 1                     SMSA (6480): PROVIDENCE-PAWTUCKET-WARWICK, R.I.-MASS   ELEVATION ABOVE GROUND: 050 FT.
SUPPORTING AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH                                      ELEVATION ABOVE MSL: 0100 FT.
COMMENTS: PROVIDENCE STATION 8                                                            DIFF. GMT: WEST 05 HOURS

-----------------------------------------------------------------------------------------------------------------------
POLLUTANT NAME                                   METHOD OF COLLECTION AND ANALYSIS            INTERVAL    STANDARD UNITS
POLLUTANT-METHOD-INTERVAL-UNITS CODE
        PCT    NBR   #VIOL     MIN     MIN                   PERCENTILES                     MAX     2ND    ARIT   GEOM   GEOM
YR-QTR  OBS    OBS  PRI SEC   DETEC    OBS     10    30    50    70    90    95    99        OBS     MAX    MEAN   MEAN  STD DEV
-----------------------------------------------------------------------------------------------------------------------
PARTICULATE                                      HI-VOL  GRAVIMETRIC                          24-HOUR    UG/CU METER (25 C)
11101-91-7-01
73-01          16    0   0      1.     21.    42.   47.   51.   90.  122.  137.  137.      137.    122.    72.    69.    1.7
73-02          19    0   0      1.     28.    32.   37.   43.   46.   69.  107.  107.      107.     69.    48.    45.    1.9
73-03          13    0   0      1.     21.    33.   39.   43.   68.  130.  138.  138.      138.    130.    58.    50.    1.7
73-04           8    0   0      1.     32.    32.   37.   38.   59.   71.   71.   71.       71.     69.    47.    46.    1.4
74-01           8    0   1      1.     50.    50.   66.   70.   93.  155.  155.  155.      155.     90.    85.    80.    1.4
74-02           9    0   0      1.     37.    37.   45.   61.   88.  191.  191.  191.      191.    103.    72.    66.    1.6
74-03          11    0   1      1.     30.    39.   53.   58.   82.   98.  157.  157.      157.     98.    70.    64.    1.6
74-04          13    0   0      1.     23.    33.   38.   51.   76.   96.  108.  108.      108.     96.    58.    53.    1.6

CARBON MONOXIDE                                  INSTRUMENTAL  NONDISPERSIVE INFRA-RED          1-HOUR     MG/CU METER (25 C)
42101-11-1-05
72-01     90 1962    0   0     0.6     0.6    1.2   1.7   2.9   4.0   5.8   6.9   9.8       15.0    15.0    3.2    2.6   2.03
72-02     83 1806    0   0     0.6     0.6    0.6   1.2   1.7   2.3   4.6   5.2   6.9       13.8    11.5    2.0    1.8   2.11
72-03     99 2173    0   0     0.6     0.6    0.6   1.2   2.3   3.5   5.2   6.3   8.1       10.4     9.2    2.6    2.1   2.08
72-04    100 2208    0   0     0.6     0.6    1.2   1.7   2.3   3.5   4.6   5.8  10.4       17.8    16.0    2.7    2.3   1.80
73-01     93 1998    0   0     0.6     0.6    0.6   1.7   2.3   2.9   4.6   5.8   7.5       19.6    13.8    2.5    2.1   1.79
73-02     97 2128    0   0     0.6     0.3    0.6   1.2   1.7   2.3   3.5   4.6   5.8       10.4     9.2    2.0    1.7   1.83

CARBON MONOXIDE                                  INSTRUMENTAL  NONDISPERSIVE INFRA-RED          8-HR-AVG   MG/CU METER (25 C)
42101-11-2-05
72-01        1935    1   1     0.6     0.6    1.2   2.1   3.0   3.9   5.5   6.3   8.8       10.4     9.8
72-02        1787    0   0     0.6     0.6    0.6   1.1   1.6   2.3   4.2   4.9   6.1        6.8     6.9
72-03        2186    0   0     0.6     0.6    0.8   1.5   2.4   3.3   4.6   5.6   7.7        8.4     8.0
72-04        2208    0   0     0.6     0.6    1.2   2.0   2.6   3.3   4.2   5.2   7.2        8.2     7.8
73-01        1982    0   0     0.6     0.6    1.0   1.7   2.4   3.1   4.3   5.2   6.6        9.1     8.2
73-02        2114    0   0     0.6     0.6    0.9   1.3   1.7   2.3   3.6   4.2   5.5        6.9     6.1
73-03           2    0   0     0.6     2.3    2.3   2.3   2.3   2.3   2.3   2.3   2.3        2.3     0.0
```

Figure 2.3.2-b Quarterly Frequency Distribution Report

YEARLY REPORT BY QUARTERS

General Description

This report lists the site description and selected summary information for the year and for the individual quarters. The site description is repeated at the top of each page, followed by the data heading and data for each pollutant-year selected. The site description gives the geographical information necessary to locate the site. Below the data heading, the codes and names are given for the pollutant, the sampling and analysis methods, the sampling interval, and the standard units in which the data are printed. The data items include: the year of the data; the percent of observations for continuous data; the minimum detectable limit for the method; the arithmetic mean, arithmetic standard deviation, minimum observation, and maximum observation for the year; and the number of observations and arithmetic mean for each quarter.

The retrieval and print options, which are based on summary criteria, are: (1) print all data which meet other selection criteria but do not print quarterly and yearly statistics which do not meet the summary criteria, (2) print all data which meet other selection criteria and flag the statistics when summary criteria are not met, or (3) print only data which fail the summary criteria with flags on the data.

Retrivals Available

The report may be retrieved based on the following selection criteria: nation, state, area, site, agency, project, pollutant, method, interval, begin year, end year, AQCR, and county.

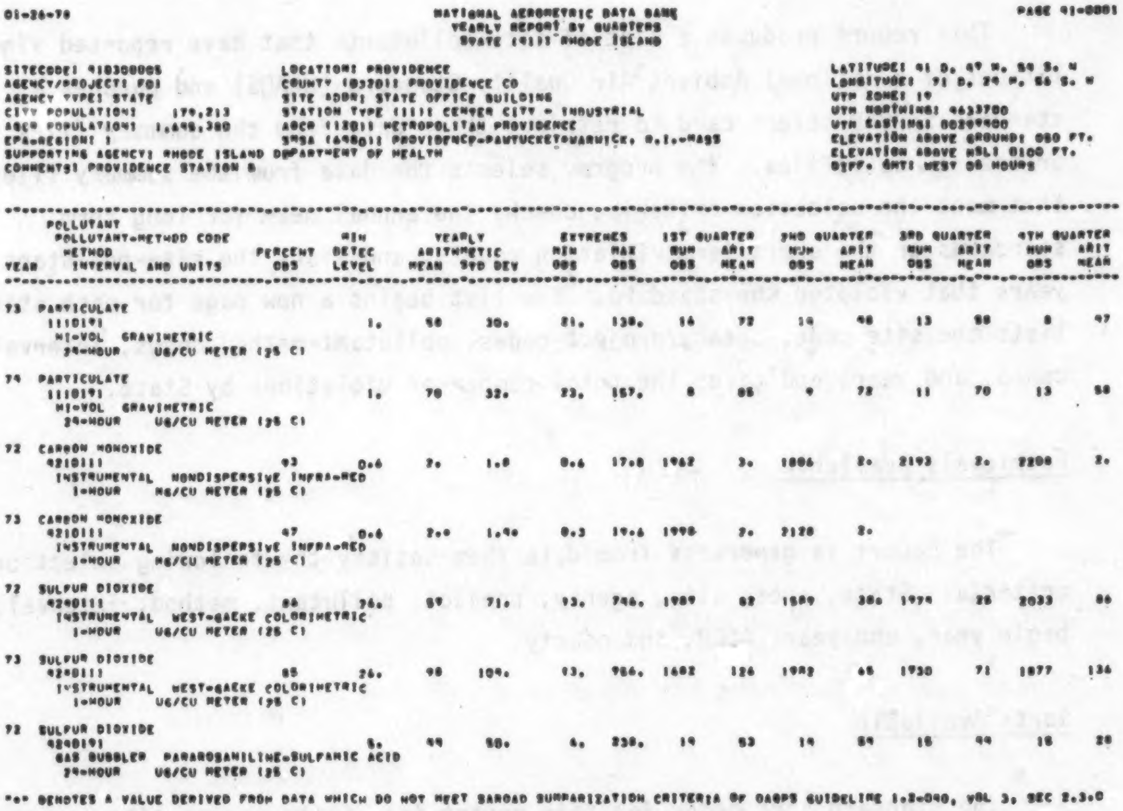
Most of the combinations of the above selection criteria are valid but the following selections are invalid: (1) area or county without state, (2) site without state/area, (3) project without agency, and (4) method without pollutant.

Sorts Available

This report may be sorted in ascending (default) or descending order by the following options: state, area, site, agency, project, AQCR, pollutant, method, units, interval, year, pollutant value, and county code. For this report, the pollutant value sort is on the yearly maximum observed value. Any number of sort options can be specified in any desired order but certain sort combinations would produce a confusing report.

Sample Report

Figure 2.3.2.c shows a Yearly Report by Quarters for particulate, carbon monoxide, sulfur dioxide, and ozone for a site in Providence, Rhode Island.



```
01-26-79                              NATIONAL AEROMETRIC DATA BANK                                       PAGE 41-0001
                                       YEARLY REPORT BY QUARTERS
                                        STATE (41) RHODE ISLAND

SITECODE: 410300005          LOCATION: PROVIDENCE                                     LATITUDE: 41 D, 49 M, 59 S. N
AGENCY/PROJECT: F01          COUNTY (0320) PROVIDENCE CO                              LONGITUDE:  71 D, 24 M, 56 S. W
AGENCY TYPE: STATE           SITE ADDR: STATE OFFICE BUILDING                         UTM ZONE: 19
CITY POPULATION:    179,213  STATION TYPE (111) CENTER CITY - INDUSTRIAL              UTM NORTHING: 4633700
AQCR POPULATION:  1,498,300  AQCR (120) METROPOLITAN PROVIDENCE                       UTM EASTING: 00299900
EPA-REGION: 1                SMSA (6480) PROVIDENCE-PAWTUCKET-WARWICK, R.I.-MASS      ELEVATION ABOVE GROUND: 050 FT.
SUPPORTING AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH                                  ELEVATION ABOVE MSL: 0100 FT.
COMMENTS: PROVIDENCE STATION 8                                                        DIFF. GMT: WEST 05 HOURS

-----------------------------------------------------------------------------------------------------------------------
     POLLUTANT
      POLLUTANT-METHOD CODE            MIN       YEARLY      EXTREMES   1ST QUARTER  2ND QUARTER  3RD QUARTER  4TH QUARTER
       METHOD                 PERCENT  DETEC   ARITHMETIC    MIN   MAX   NUM   ARIT   NUM   ARIT   NUM   ARIT   NUM   ARIT
YEAR    INTERVAL AND UNITS      OBS    LEVEL   MEAN STD DEV  OBS   OBS   OBS   MEAN   OBS   MEAN   OBS   MEAN   OBS   MEAN
-----------------------------------------------------------------------------------------------------------------------

73  PARTICULATE
     1110191                            1.      50     30.    21.  138.    16    72    14    48    13    58     8    47
      HI-VOL  GRAVIMETRIC
       24-HOUR    UG/CU METER (25 C)

74  PARTICULATE
     1110191                            1.      70     32.    23.  157.     8    85     9    72    11    70    13    58
      HI-VOL  GRAVIMETRIC
       24-HOUR    UG/CU METER (25 C)

72  CARBON MONOXIDE
     4210111                    93      0.6     2.     1.8    0.6  17.8  1962    3.  1806    2.  2193    2.  2208    2.
      INSTRUMENTAL  NONDISPERSIVE INFRA-RED
        1-HOUR    MG/CU METER (25 C)

73  CARBON MONOXIDE
     4210111                    47      0.6     2.0    1.90   0.3  19.6  1998    2.  2120    2.
      INSTRUMENTAL  NONDISPERSIVE INFRA-RED
        1-HOUR    MG/CU METER (25 C)

72  SULFUR DIOXIDE
     4240111                    84      26.     89     71.    13.  746.  1989    82  1589   38.  1974    25  2033    86
      INSTRUMENTAL  WEST-GAEKE COLORIMETRIC
        1-HOUR    UG/CU METER (25 C)

73  SULFUR DIOXIDE
     4240111                    85      26.     98    109.    13.  956.  1602   126  1982    65  1730    71  1877   136
      INSTRUMENTAL  WEST-GAEKE COLORIMETRIC
        1-HOUR    UG/CU METER (25 C)

72  SULFUR DIOXIDE
     4240191                            5.      49     50.     4.  238.    19    53    19    59    15    49    16    28
      GAS BUBBLER  PARAROSANILINE-SULFAMIC ACID
       24-HOUR    UG/CU METER (25 C)

"*" DENOTES A VALUE DERIVED FROM DATA WHICH DO NOT MEET SAROAD SUMMARIZATION CRITERIA OF OAQPS GUIDELINE 1.2-040, VOL 3, SEC 2.3.0
```

Figure 2.3.2-c Yearly Report by Quarters

STANDARD VIOLATION SUMMARY AND SELECT CARD GENERATION

General Description

This report produces a list of site-pollutants that have reported violations of a National Ambient Air Quality Standard (NAAQS) and punches a standard SAROAD select card to retrieve these data from the summary files or the raw data files. The program selects the data from the summary files that meet the selection criteria, checks the annual mean for long term standards or the short term violation counts, and lists the site-pollutant-years that violated the standard. The list begins a new page for each state; lists the site code, agency/project codes, pollutant-method codes, interval codes, and year; and gives the total number of violations by State.

Retrievals Available

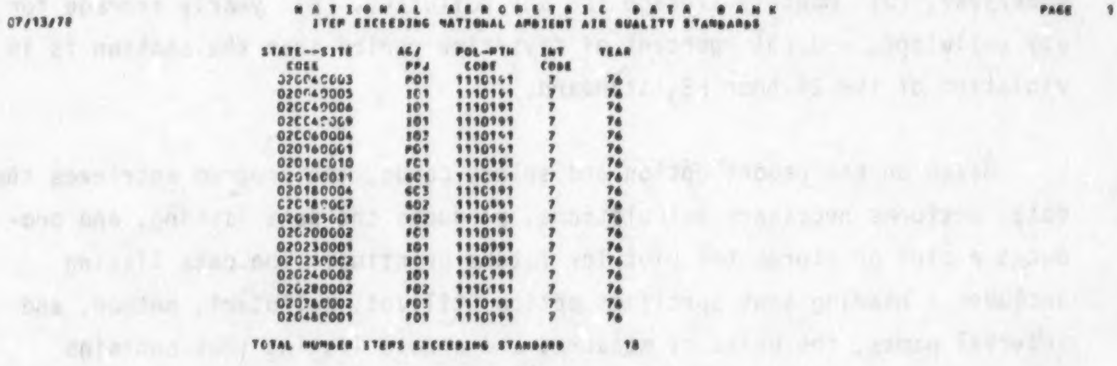
The report is generated from data that satisfy the following selection criteria: State, area, site, agency, project, pollutant, method, interval, begin year, end year, AQCR, and county.

Sorts Available

The standard sort order for this report is: State, area, site, agency, project, pollutant, method, interval, and year.

Sample Report

Figure 2.3.2.d is an example of the report for particulate for Alaska for 1976.



```
                    N A T I O N A L   A E R O M E T R I C   D A T A   B A N K                        PAGE    1
07/13/78           ITEM EXCEEDING NATIONAL AMBIENT AIR QUALITY STANDARDS

                  STATE--SITE     AG/    POL-MTH    INT     YEAR
                     CODE         PPJ     CODE      CODE
                   020040003      P01    1110191     7       76
                   020040005      I01    1110191     7       76
                   020040006      I01    1110191     7       76
                   020040069      I01    1110191     7       76
                   020060004      I02    1110191     7       76
                   020160001      P01    1110191     7       76
                   020160010      F01    1110191     7       76
                   020160011      G01    1110191     7       76
                   020180006      G03    1110191     7       76
                   020180007      G02    1110191     7       76
                   020195001      F02    1110191     7       76
                   020200002      F01    1110191     7       76
                   020230001      I01    1110191     7       76
                   020230002      I01    1110191     7       76
                   020240002      I01    1110191     7       76
                   020280002      F02    1110191     7       76
                   020780002      F01    1110191     7       76
                   020480001      F01    1110191     7       76

                TOTAL NUMBER ITEMS EXCEEDING STANDARD         18

&FIN
```

Figure 2.3.2.d Standards Violation Summary

TREND PLOTTING

General Description

This report produces a listing of data and/or a plot of the specific data for one of five possible options. The possible options include: (1) highest 8-hour CO average/week/year, (2) highest 24-hour SO_2 average/week/year, (3) monthly average for any pollutant, (4) yearly average for any pollutant, and (5) percent of days/time period that the station is in violation of the 24-hour SO_2 standard.

Based on the report option and select cards, the program retrieves the data, performs necessary calculations, produces the data listing, and produces a plot or stores the plot for future printing. The data listing includes a heading that specifies option utilized; pollutant, method, and interval names; the units of measure; and a data listing that contains the State name, site code, site location, and actual air quality data that varies for each option. For option 3, the data listing would include the monthly average.

The plot is produced by a standard 132 character line printer and includes a heading with the same information as the heading for the data report and a plot. The plot is created utilizing concentration as the x-axis and date as the y-axis. The number of years per page is based on the option selected. The concentration is automatically scaled utilizing the range of pollutant concentrations.

Retrievals Available

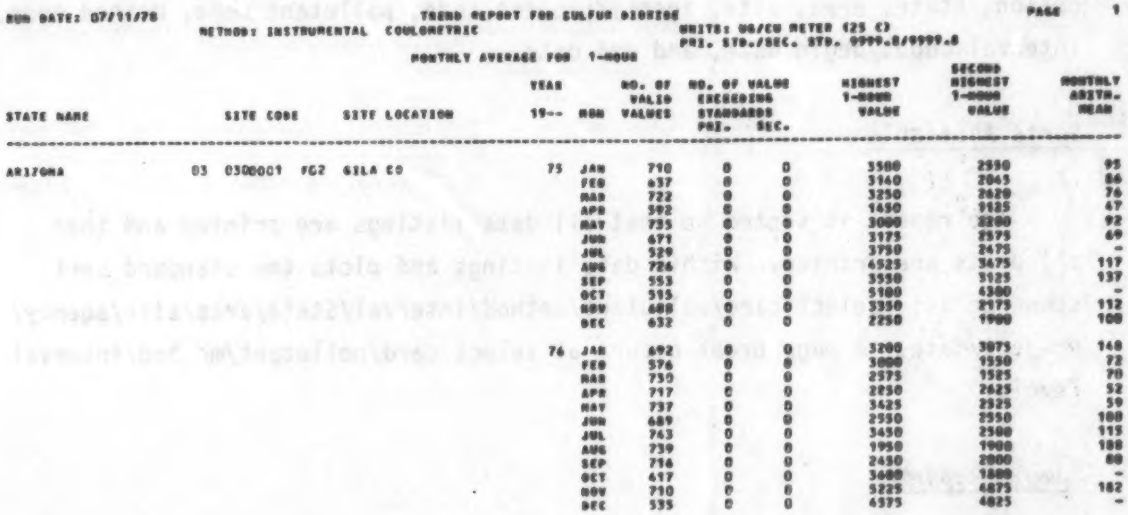
The report may be retrieved on the following selection criteria: option, State, area, site, agency/project code, pollutant code, method code, interval code, begin date, and end date.

Sorts Available

The report is sorted so that all data listings are printed and then all plots are printed. Within data listings and plots the standard sort sequence is: select card/pollutant/method/interval/State/area/site/agency/project/date. A page break occurs at select card/pollutant/method/interval levels.

Sample Report

Figure 2.3.2.e is an example of data report for option 3 and Figure 2.3.2.f is an example of the plot for option 3.



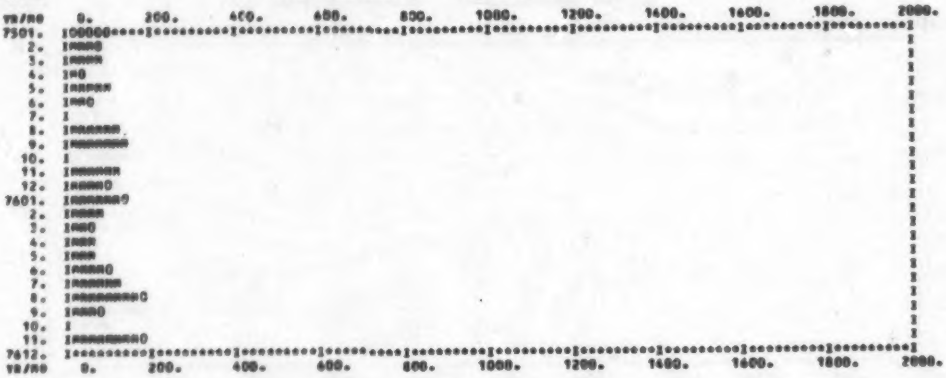
```
RUN DATE: 07/11/78                    TREND REPORT FOR SULFUR DIOXIDE                                     PAGE     1
                    METHOD: INSTRUMENTAL  COULOMETRIC                 UNITS: UG/CU METER (25 C)
                                                                      PRI. STD./SEC. STD. 9999.0/9999.0
                                                MONTHLY AVERAGE FOR  1-HOUR
                                                                                                  SECOND
                                                YEAR         NO. OF  NO. OF VALUE         HIGHEST       HIGHEST         MONTHLY
                                                               VALID   EXCEEDING          1-HOUR        1-HOUR           ARITH.
STATE NAME               SITE CODE    SITE LOCATION  19--  MON  VALUES   STANDARDS            VALUE         VALUE           MEAN
                                                                       PRI.   SEC.
----------------------------------------------------------------------------------------------------------------------------

ARIZONA              03  0300001  FG2  GILA CO       75   JAN    710      0      0            3500          2550             95
                                                          FEB    637      0      0            3140          2045             86
                                                          MAR    722      0      0            3250          2620             76
                                                          APR    592      0      0            1450          1125             47
                                                          MAY    735      0      0            3000          2200             92
                                                          JUN    671      0      0            3175          2575             69
                                                          JUL    529      0      0            3750          2475              -
                                                          AUG    726      0      0            4525          3475            117
                                                          SEP    553      0      0            3550          3125            137
                                                          OCT    515      0      0            5100          4300              -
                                                          NOV    688      0      0            3350          2175            112
                                                          DEC    632      0      0            2250          1900            100

                                                     76   JAN    692      0      0            3200          3075            148
                                                          FEB    576      0      0            3000          1550             72
                                                          MAR    730      0      0            2575          1525             70
                                                          APR    717      0      0            2250          2625             52
                                                          MAY    737      0      0            3425          2525             59
                                                          JUN    689      0      0            2550          2550            100
                                                          JUL    743      0      0            3450          2500            115
                                                          AUG    739      0      0            1950          1900            108
                                                          SEP    716      0      0            2450          2000             80
                                                          OCT    417      0      0            3600          1800              -
                                                          NOV    710      0      0            5225          4875            182
                                                          DEC    535      0      0            4575          4025              -
```

Figure 2.3.2.e Trend Plot Data Listing

```
                                         TREND PLOT FOR SULFUR DIOXIDE                                        PAGE    1
                   METHOD: INSTRUMENTAL  COULOMETRIC                                UNITS: UG/CU METER (25 C)
                                                                                    PRIMARY/SECONDARY STD: ******/******
                                         MONTHLY AVERAGE FOR  1-HOUR
STATE NAME: ARIZONA                    SITE CODE: 030300001F02      SITE LOCATION: GILA CO
```



```
AZ:EOF
@EOF IGNORED - IN CONTROL MODE

@FREE  NA266-PLOT.

@FIN
```

Figure 2.3.2.f Trend Plot of Monthly Averages

NADB no longer has the responsibility for maintaining the Air Quality Assurance Data.

EMISSIONS SUMMARY REPORT

General Description

The HATREMS Emissions Summary Report shows emissions data summaries for HATREMS point and area sources for selected geographical areas. Each selected report includes annual emissions for up to five pollutants specified by the user. The emission sources included in this report are:

- ° Fuel Combustion
  - Residential Fuel (Area)
  - Electric Generation (Point)
  - Industrial Fuel (Area and Point)
  - Commerical/Industrial Fuel (Area and Point)
  - Internal Combustion (Point)
- ° Industrial Process (Point)
  - 13 categories
- ° Solid Waste Disposal
  - Government (Point)
  - Residential (Area)
  - Commercial-Institutional (Area and Point)
  - Industrial (Area and Point)
  - Other (Point)
- ° Transportation (Area)
  - Land Vehicles
  - Aircraft
  - Vessels
  - Gas Handling Evaporative Loss

- Miscellaneous (Area)
  Includes free area sources

The report also shows grand totals for each pollutant, subdivided into area source and point source emissions.

Retrievals Available

The retrieval options for the HATREMS "Emissions Summary Report" are:

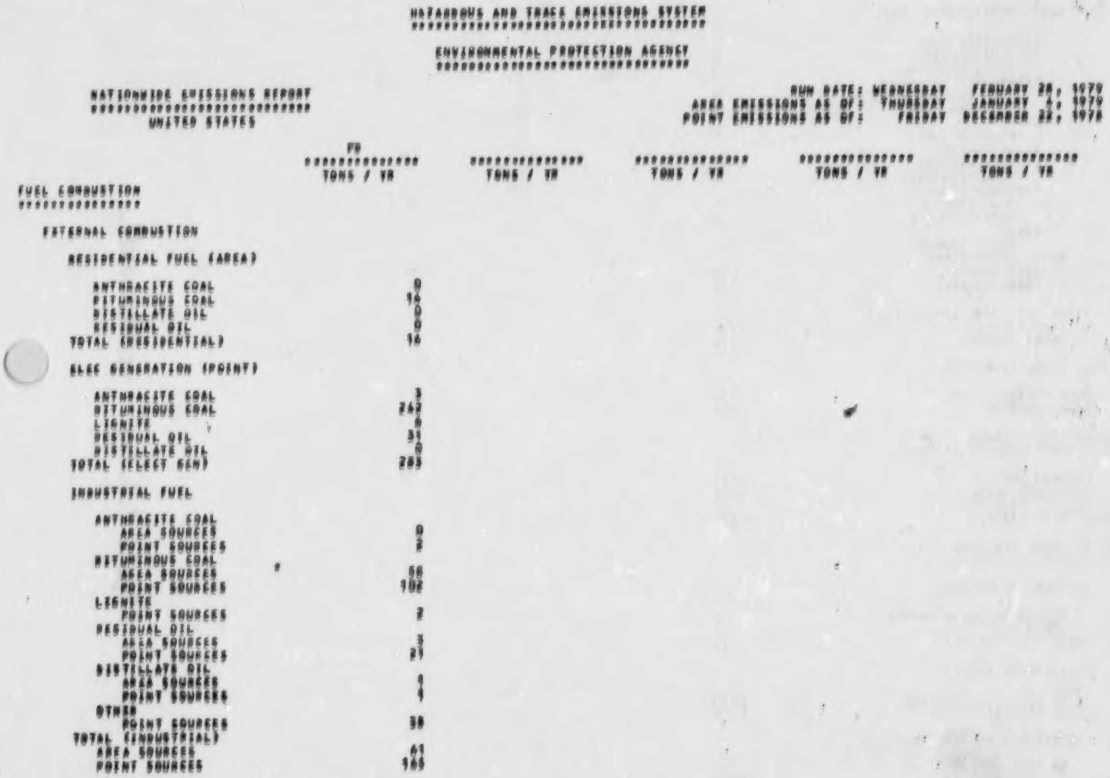
- Nation
- State
- County
- EPA Region
- AQCR
- State/AQCR

Sorts

No sorts are available for this report.

Sample Reports

Figure 2.5.1-a is an example report run for the entire nation. The report format is the same for each of the retrieval options. When all fields of a print line contain no emissions data or invalid emissions data, the line is deleted from the report.



```
                         HAZARDOUS AND TRACE EMISSIONS SYSTEM
                         ************************************

                             ENVIRONMENTAL PROTECTION AGENCY
                             *******************************

  NATIONWIDE EMISSIONS REPORT                               RUN DATE: WEDNESDAY   FEBUARY 28, 1979
  ***************************                   AREA EMISSIONS AS OF:  THURSDAY   JANUARY  4, 1979
         UNITED STATES                         POINT EMISSIONS AS OF:    FRIDAY  DECEMBER 22, 1978

                                PB
                         **************   **************   **************   **************   **************
                            TONS / YR        TONS / YR        TONS / YR        TONS / YR        TONS / YR
FUEL COMBUSTION
***************

   EXTERNAL COMBUSTION

      RESIDENTIAL FUEL (AREA)

         ANTHRACITE COAL                0
         BITUMINOUS COAL               16
         DISTILLATE OIL                 0
         RESIDUAL OIL                   0
      TOTAL (RESIDENTIAL)              16

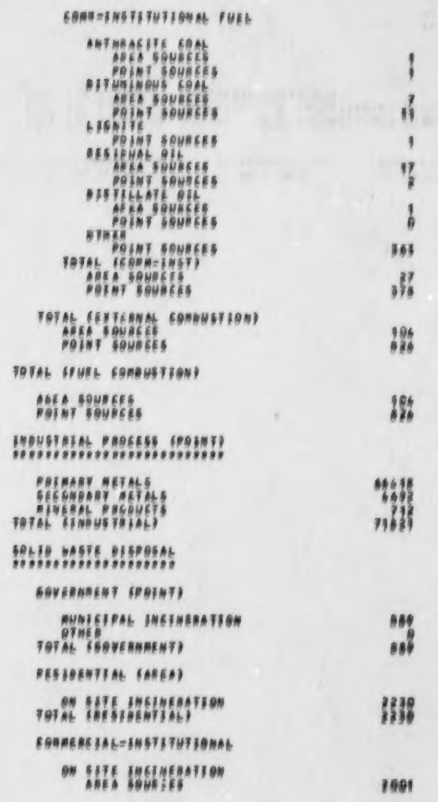
      ELEC GENERATION (POINT)

         ANTHRACITE COAL                3
         BITUMINOUS COAL              242
         LIGNITE                        6
         RESIDUAL OIL                  31
         DISTILLATE OIL                 0
      TOTAL (ELECT GEN)               283

      INDUSTRIAL FUEL

         ANTHRACITE COAL
            AREA SOURCES                0
            POINT SOURCES               2
         BITUMINOUS COAL
            AREA SOURCES               56
            POINT SOURCES             102
         LIGNITE
            POINT SOURCES               2
         RESIDUAL OIL
            AREA SOURCES                3
            POINT SOURCES              21
         DISTILLATE OIL
            AREA SOURCES                1
            POINT SOURCES               1
         OTHER
            POINT SOURCES              38
      TOTAL (INDUSTRIAL)
         AREA SOURCES                  61
         POINT SOURCES                165
```

Figure 2.5.1-a. HATREMS Emissions Summary Report.



```
    COMM-INSTITUTIONAL FUEL

      ANTHRACITE COAL
         AREA SOURCES                      1
         POINT SOURCES                     1
      BITUMINOUS COAL
         AREA SOURCES                      7
         POINT SOURCES                    11
      LIGNITE
         POINT SOURCES                     1
      RESIDUAL OIL
         AREA SOURCES                     17
         POINT SOURCES                     2
      DISTILLATE OIL
         AREA SOURCES                      1
         POINT SOURCES                     0
      OTHER
         POINT SOURCES                   361
    TOTAL (COMM-INST)
      AREA SOURCES                        27
      POINT SOURCES                      378

  TOTAL (EXTERNAL COMBUSTION)
     AREA SOURCES                        106
     POINT SOURCES                       826

TOTAL (FUEL COMBUSTION)

   AREA SOURCES                          106
   POINT SOURCES                         826

INDUSTRIAL PROCESS (POINT)
**************************

   PRIMARY METALS                      64618
   SECONDARY METALS                     6492
   MINERAL PRODUCTS                      712
TOTAL (INDUSTRIAL)                     71821

SOLID WASTE DISPOSAL
********************

   GOVERNMENT (POINT)

      MUNICIPAL INCINERATION             889
      OTHER                                0
   TOTAL (GOVERNMENT)                    889

   RESIDENTIAL (AREA)

      ON SITE INCINERATION              2230
   TOTAL (RESIDENTIAL)                  2230

   COMMERCIAL-INSTITUTIONAL

      ON SITE INCINERATION
         AREA SOURCES                   7001
```

Figure 2.5.1-a. (continued).

```
      TOTAL (COMM-INST)
         AREA SOURCES                                     2001

      INDUSTRIAL

         ON SITE INCINERATION
            AREA SOURCES                                  1107
      TOTAL (INDUSTRIAL)
         AREA SOURCES                                     1107

   TOTAL (SOLID WASTE DISP)

      AREA SOURCES                                        5337
      POINT SOURCES                                        889

   TRANSPORTATION (AREA)
   *********************

      LAND VEHICLES

         GASOLINE

            LIGHT VEHICLES                              137227
            HEAVY VEHICLES                               11535
            OFF HIGHWAY                                   5066
         TOTAL (GASOLINE)                               153827

   TOTAL (TRANSPORTATION)                               153827


   GRAND TOTAL
   ***********

      AREA SOURCES                                      159268
      POINT SOURCES                                      73536

   TOTAL                                                232804
```

Figure 2.5.1-a. (continued).

POINT SOURCE REPORT

General Description

The HATREMS Point Source Report shows point source operating data and emissions for up to five or for all hazardous pollutants in HATREMS as specified by the user. Both NEDS and the HATREMS point source files provide data for this report.

Retrievals

The retrieval options for geographic area are:
- Nation
- State
- County
- City
- AQCR
- State/AQCR
- Plant
- Point

In addition, the user may specify the following data parameters as point source selection criteria:
- Source Classification Code (or portions of the SCC)
- Ownership
- Standard Industrial Classification Code
- Pollutant
- Emissions Estimation Method Code - A separate method can be specified for each of five pollutants, or all pollutants may be specified.

- Minimum emissions level - A minimum emissions level can be specified for each of five pollutants or one minimum can be specified for all pollutants.
- Significant Digits - The number of significant digits to be used for reporting emissions can be specified for each of up to five pollutants or for all pollutants.

Any valid combinations of these retrieval options can be specified.

Sorts

The following sorts are available for the Point Source Report. All sorts are in ascending sequence unless denoted as descending.

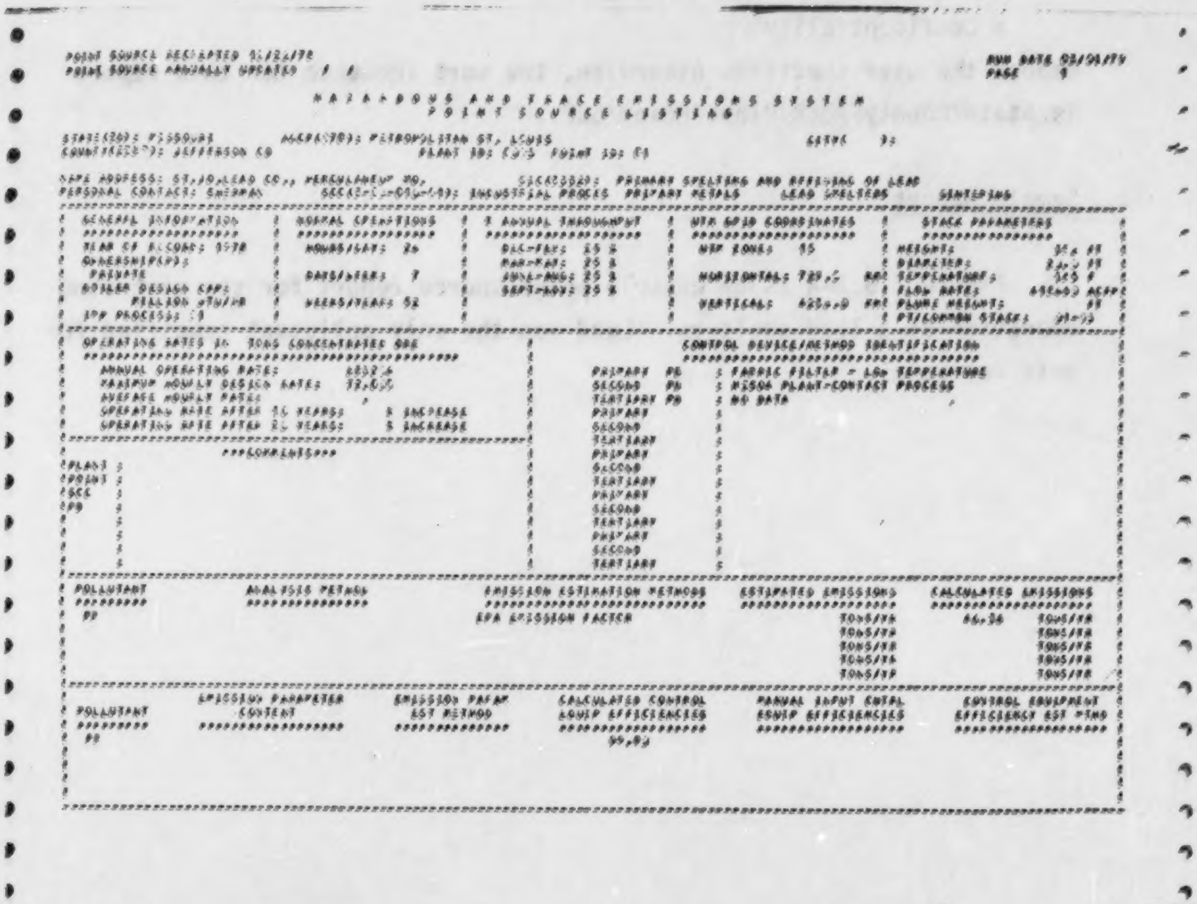
- State
- County
- Plant
- Point
- SCC
- Ownership
- SIC
- Estimation Method
- AQCR
- Plant Name
- Calculated Emissions
- Year of Record of Emissions
- Control Equipment Code
- Control Efficiency (descending)
- Pollutant
- City
- UTM Coordinates

- Operating Rate (descending)
- Confidentiality

Unless the user specifies otherwise, the sort sequence for this report is State/County/AQCR/Plant/Point/SCC.

Sample Report

Figure 2.5.2-a is an example point source report for the sintering operation at a lead smelters. Lead was the only pollutant specified for this retrieval.



```
POINT SOURCE ACCEPTED [illegible]                                                  RUN DATE 03/01/79
POINT SOURCE ANNUALLY UPDATED  / /                                                 PAGE  1
               H A Z A R D O U S   A N D   T R A C E   E M I S S I O N S   S Y S T E M
                                 P O I N T   S O U R C E   L I S T I N G
STATE([illegible]): MISSOURI       AQCR([illegible]): METROPOLITAN ST. LOUIS                    CITY(    ):
COUNTY([illegible]): JEFFERSON CO             PLANT ID: [illegible]  POINT ID: [illegible]
NAME ADDRESS: ST.JO.LEAD CO., HERCULANEUM MO.         SIC([illegible]): PRIMARY SMELTING AND REFINING OF LEAD
PERSONAL CONTACT: SHERMAN       SCC([illegible]): INDUSTRIAL PROCES  PRIMARY METALS    LEAD SMELTERS     SINTERING
GENERAL INFORMATION     NORMAL OPERATIONS     % ANNUAL THROUGHPUT    UTM GRID COORDINATES      STACK PARAMETERS
YEAR OF RECORD: 1978    HOURS/DAY: 24          DEC-FEB: 25 %          UTM ZONE:  15             HEIGHT:        [illegible] FT
OWNERSHIP(PS):                                 MAR-MAY: 25 %                                    DIAMETER:      [illegible] FT
 PRIVATE                DAYS/WEEK:  7          JUNE-AUG: 25 %         HORIZONTAL: [illegible] KM  TEMPERATURE:   [illegible] F
BOILER DESIGN CAP:                             SEPT-NOV: 25 %                                   FLOW RATE:     [illegible] ACFM
      MILLION BTU/HR    WEEKS/YEAR: 52                                VERTICAL:  [illegible] KM   PLUME HEIGHT:          FT
IPP PROCESS: [illegible]                                                                        PT/COMMON STACK: [illegible]
OPERATING RATES IN  TONS CONCENTRATED ORE                     CONTROL DEVICE/METHOD IDENTIFICATION
  ANNUAL OPERATING RATE:        [illegible]                     PRIMARY  PB   : FABRIC FILTER - LOW TEMPERATURE
  MAXIMUM HOURLY DESIGN RATE:   [illegible]                     SECOND   PB   : MISC. PLANT-CONTACT PROCESS
  AVERAGE HOURLY RATE:              ,                           TERTIARY PB   : NO DATA
  OPERATING RATE AFTER [illegible] YEARS:    % INCREASE         PRIMARY       :
  OPERATING RATE AFTER [illegible] YEARS:    % INCREASE         SECOND        :
                                                                TERTIARY      :
              ***COMMENTS***                                    PRIMARY       :
PLANT :                                                         SECOND        :
POINT :                                                         TERTIARY      :
SCC   :                                                         PRIMARY       :
PB    :                                                         SECOND        :
      :                                                         TERTIARY      :
      :                                                         PRIMARY       :
      :                                                         SECOND        :
      :                                                         TERTIARY      :
POLLUTANT          ANALYSIS METHOD        EMISSION ESTIMATION METHODS    ESTIMATED EMISSIONS    CALCULATED EMISSIONS
 PB                                       EPA EMISSION FACTOR                     TONS/YR      [illegible]   TONS/YR
                                                                                  TONS/YR                    TONS/YR
                                                                                  TONS/YR                    TONS/YR
                                                                                  TONS/YR                    TONS/YR
                                                                                  TONS/YR                    TONS/YR
               EMISSION PARAMETER     EMISSION PARAM    CALCULATED CONTROL    MANUAL INPUT CNTRL     CONTROL EQUIPMENT
POLLUTANT           CONTENT            EST METHOD      EQUIP EFFICIENCIES    EQUIP EFFICIENCIES    EFFICIENCY EST MTHD
 PB                                                         [illegible]
```

Figure 2.5.2-a Points Source Report

NADB no longer has the responsibility for maintaining the Federal Power Commission Form 67 System.

Various data sets are used with the AEROS system as source of emissions related information. These included, for example, data on fuel usage, on traffic counts, and on census counts. The data sets currently utilized by AEROS include the following:

AREA Source Apportioning
Census Data
Polk Vehicle Data
Federal Power Commission Report (Form 423)

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	Report Capabilities	**SECTION** 2	**CHAPTER** 10	**SUBJECT** 2
NATIONAL AIR DATA BRANCH	**CHAPTER**	Auxiliary Data	**DATE** 3/1/79		**PAGE** 1
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT**	NEDS Verification File	Update III-2		

The NEDS Verification File has been dropped.

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Analysis Packages	**SECTION** 3	**CHAPTER** 0	**SUBJECT** 0
NATIONAL AIR DATA BRANCH	**CHAPTER**	**DATE** 3/1/79	**PAGE** 1	
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT**	Update III-2		

NADB no longer has the responsibility for maintaining the following analysis packages:

1. The Source Inventory and Emission Factor Analysis System (SIEFA)
2. The Weighted Sensitivity Analysis Program (WSAP)
3. The Regional Emissions Projection System (REPS)
4. The Computer Assisted Area Source Emissions Gridding Procedure (CAASE)

SAROAD TERMINAL SYSTEM (STS)

Introduction

The Aerometric and Emissions Reporting System (AEROS) has been expanded to enable users to access air quality data files for retrieval via demand (interactive) terminals. Using this system, the user can interactively access the data files or can build requests that are then submitted to the operating system to be run at a later time (batch). The user has the option of requesting the output be printed at his low- or medium-speed terminal or requesting the output be printed at the central computer site and be mailed to him later.

The AEROS terminal system is designed so that users who are not familiar with computers as well as users who are computer-oriented can access the system and submit their requests. The system operates in a conversational mode to request information from the user. A function (subprogram) is specified by the user, the master program calls the appropriate subprogram, and the subprogram assumes control.

The two types of subprograms are those that retrieve data immediately and display them on the low-speed terminal (interactive) and those that ask the user questions that allow a run to be generated and submitted for later processing (remote batch). The first time a remote batch function is requested, the master program asks the user for fixed accounting information such as account code. This information is then used for all remote batch runs submitted. Other information, such as run time, is requested by each individual remote batch function.

When a user has accessed all the desired functions and has returned to the master program, the END command will take him out of the system. The user is returned to the EXEC 8 operating system in which any software available at this time, including reentry to the SAROAD Terminal System, can be used.

Descriptions of the master program and all available functions follow, and sample interactive sessions and sample outputs are included. Any questions regarding this system, other than instructions on how to use a specific type of terminal, are to be referred to:

National Air Data Branch (MD-14)
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Phone: (919) 541-5395

Questions regarding accounting information, use of a terminal, or the status of the UNIVAC 1110 are to be referred to:

National Computer Center (MD-34)
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
Phone : (919) 541-3649

Note: Throughout the manual the selection commands are listed as follows:

```
'state=??'
'site=???'
```

The number of question marks following the equal sign defines the number of characters in that code. In the above examples, the state command requires two characters following the equal sign and site requires three. If the incorrect number of characters is entered, the command is rejected.

Required Accounting Information

In order to use the SAROAD terminal system, the user must be registered at the National Computer Center (NCC), Research Triangle Park, NC. The accounting symbols assigned to the user plus other information necessary to submit batch jobs will be requested by the terminal system. The information required is:

i. account number.

ii. project code.

iii. terminal identification code. (This information is used for routing the printout generated by batch jobs. It can be either the user's site or the central computer site.)

iv. priority code. (This is one of a system of codes established by NCC.)

v. run identification code. (This code is composed of an NCC-assigned bin number and up to four additional characters specified by the user.)

vi. estimated run time
(The user must furnish an estimate to be entered on the @RUN card. Sample estimates for the batch runs are given in the functional sections).

Almost all of the codes require interaction with the National Computer Center. If the user has questions relating to these items, please call User Services, FTS 629-3649.

Computer Instructions For Entering STS

In order to use STS, the user must know how to dial the computer, establish contact, and identify himself to the operating system. The procedure varies slightly from terminal to terminal so no attempt is made here to instruct the user on terminal usage. If there is a need for instruction in this area, please contact User Services, NCC as listed in this manual.

When contact with the UNIVAC 1110 has been established and the user's terminal identification has been accepted, the operating system will print a message identifying the operating system. At this point the user must enter an @RUN card to begin his session. Please note that, because of the STS design, the user must specify the CARD parameter on the RUN card if the remote batch portion of the STS is to be used. No cards will actually be punched.

Once the user's RUN card has been accepted, the date and time the user signed on is displayed on the terminal and the user can start entering instructions. When the user is ready to use the AEROS Terminal System, the following sequence of instructions is entered.

```
@ASG,A  NADB*NADB-ABS/SDS.
@COPY,A  NADB*NADB-ABS.NA206
@FREE   NADB*NADB-ABS.
@NA206
```

The user will enter the master program and interaction with the system will begin. (All responses entered by the user within STS must be in capital letters.) When the user is finished with the system, the END command is entered. Control is returned to the operating system and the user is free to access any UNIVAC 1110 functions desired, re-enter the STS, or sign off the UNIVAC system. To sign off, the user enters @FIN, waits for the accounting information to print, and then enters @@TERM.

Should the 1110 system go down or should the line drop during an STS session, the user has to re-dial the computer and follow regular sign on procedures to re-enter the system. If the user was building remote batch jobs at the time computer contact was broken, only the job being constructed at that time is lost. This is due to the dynamic submission of batch runs by the STS at the time the user requests the run be submitted.

STS Master Program

The STS master program is designed as a processor. This means that all the files required for the system are dynamically assigned by the program. If there are any problems encountered in assigning a file, a message is printed but processing continues. If a file is unavailable, only those functions using that particular file are not operable. The messages and their meanings are listed below.

i. file name WAITING TO ROLL FILE IN

The file specified has been rolled out by the 1110 Operating System and the terminal system is waiting for the file to be restored to mass storage.

ii. file name DESTROYED--CONTINUING

The file specified has been marked as having been destroyed by the 1110 Operating System. The system will continue but any function using the specified file will not be operational. Call NCC, User Services Section.

iii. file name DISABLED--CONTINUING

The file specified was in use when the 1110 system crashed. There is usually no problem with using the file.

iv. file name IN EXCLUSIVE USE-CONTINUING

The file specified is in exclusive use by another run. This usually happens when NADB is updating the file. The system continues, but functions requiring the specified file will be inoperable. A later attempt may provide access to a function requiring this file.

v. file name FACILITY REJECTED--CONTINUING

The file specified does not exist. It may have been removed by the 1110 Operating System or may have been deleted in preparation for an update that then failed. Call NADB, Data Processing Section.

The user is asked if a CRT terminal is being used. A CRT terminal is a cathode-ray-type terminal such as a UNISCOPE 100 or a HAZELTINE 2000. The interactive functions are designed to utilize either a 120-character print line or a 72-character print line. If you answer YES to the CRT question, a 72-character print line is used. If answer is NO, a 120-character line is used.

Next, the user is asked whether instructions are needed for using the system. If YES is entered, a brief discussion of the system and the function list are provided. Each function entered then prints a brief description of itself thereafter. If NO is entered, it is assumed that the user is familar with the system and less instructional information is displayed. If the user enters NO and then decides he needs a list of the functions, he can enter HELP after the FUNCTION? prompt.

When the FUNCTION? prompt is printed, the user is free to enter any valid STS function. If an invalid entry is encountered, a message is printed and the FUNCTION? prompt is printed again. If the user has finished using STS, he enters END after the FUNCTION? prompt and control is returned to the UNIVAC 1110 operating system.

If an interactive function is specified, control is immediately passed to the appropriate subprogram. Interaction between the user and the data files via commands given to the subprogram continues until the END command is entered. The subprogram then returns control to the master program and a new function is requested.

If a remote batch function is requested, the master program first checks to see if this is the first remote function requested during the current terminal session.

If this is not the first batch function requested, control is passed to the appropriate subprogram. The subprogram interacts with the user to construct remote batch runs. When the final END command for the subprogram is encountered, a summary of the job constructed is printed for user review. The user has the option of submitting or cancelling the constructed run. If the run is submitted, the subprogram dynamically submits the run to the UNIVAC 1110 system. The job enters the job queue at this point and is eligible for execution. (As jobs are submitted to the UNIVAC operating system, a message is returned indicating the run identifier and whether the run was accepted or not). After the job is submitted or cancelled, control is returned to the master program.

The first remote batch function requested during a terminal session causes the master program to request some fixed accounting information. The information requested is then used for all batch runs constructed during the terminal session. The information requested is:

i. project code. At the prompt, PROJ?, the user should enter his valid UNIVAC project code.

ii. terminal identifier. The user can select a location where all of the remote batch output will be routed. This location can be a low-speed, medium-speed or high-speed terminal. To route the output to the central UNIVAC 1110 site the user enters PR. The location selected is entered after the TERMINAL ID? prompt.

iii. account number. Account numbers must be registered with NCC before run submissions will be accepted. The account number is entered after the ACCT #? prompt.

No validity or edit checks are made for the above three entries by ATS. At the point an actual batch run is submitted to the 1110 operating system, a check is made by that system against the valid account and project code combinations. If the combination entered is not valid, the run will not be accepted.

After the initial information is entered for the first access of a batch function, control is passed to the appropriate subprogram and the session proceeds as described above.

The following sections describe the actual functions available within the SAROAD Terminal System. Besides the descriptive name, the subsystem, access type, and function entry is listed. The notation used is:

S = SAROAD
I = Interactive Access
RB = Remote Batch Access

SAROAD POLLUTANT NAMES (S, I, PO)

Description

The pollutant names function is an interactive function that allows the user to retrieve pollutant names corresponding to user given valid pollutant codes. Sample of an interactive session using this function is included in this section.

Structured Entries

When this function is first entered, the user may ask for a listing of the available functional commands by replying "yes" to the prompt "COMMAND LIST. . .YES OR NO?"

Commands

After the preliminary responses have been entered, the user receives the prompt, COMMAND? The user should select and enter a command word from the list given below. The command word can be entered in its entirety or can be abbreviated to the first two characters of the word. The commands for this function are:

COMMAND	DESCRIPTION
POLLUTANT=????	The pollutant code for which a name is desired.
FIND	List the pollutant name for the code specified by the POLLUTANT command. If the POLLUTANT command is not specified, then the first pollutant name will be listed.

NEXT ??	List the pollutant name for the next ?? sequential pollutant codes. ?? must be a 2-digit number specifying the number of sequential pollutant names desired. If ?? is entered as blanks, the next sequential pollutant name is listed.
END	Signals the end of processing.

Special Notes

The output generated by this function is produced on the user's terminal immediately after the commands FIND or NEXT.

"Example Interactive Session"

```
@ASG,A NADB*NADB-ABS/SDS
FACILITY WARNING  000200000000
@COPY,A NADB*NADB-ABS.NA206
FURPUR 27R3C E35 SL73R1 08/10/78 10:29:03
 1 ABS
@FREE NADB*NADB-ABS
READY
@NA206
SAROAD TERMINAL SYSTEM (V.2)  DATE: 08/10/78       TIME: 10:29:36

NADB-STE-INX DISABLED--CONTINUING
NADB-AL-SFBK DISABLED--CONTINUING
NADB-AL-SFPI DISABLED--CONTINUING
NADB-AL-SFSI DISABLED--CONTINUING
NADB-PARMFL  DISABLED--CONTINUING
ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
YES

THE SAROAD TERMINAL SYSTEM PROVIDES ACCESS TO THE AIR
QUALITY DATA (SAROAD) THROUGH
THE FUNCTIONS LISTED BELOW. EACH FUNCTION DEFINES THE
SUB-SYSTEM AND THE MODE OF ACCESS. THIS IS INDICATED
BY THE FOLLOWING NOTATION:
     S = SAROAD
     I = INTERACTIVE ACCESS
    RB = REMOTE BATCH ACCESS
THE FOLLOWING IS THE LIST OF LEGAL FUNCTONS.
     SB   - SAROAD REMOTE BATCH             (S, RB)
     QS   - QUARTERLY SUMMARIES             (S, I)
     YS   - YEARLY SUMMARIES                (S, I)
     SI   - SITE DESCRIPTIONS               (S, I)
     UN   - UNIT TABLE                      (S, I)
     PO   - POLLUTANT NAMES                 (S, I)
     HELP - DESCRIPTION OF FUNCTIONS
     END  - END TERMINAL SESSION
FUNCTION?
PO


AIR POLLUTION POLLUTANT NAMES


GIVEN A VALID POLLUTANT CODE, THIS PROGRAM GIVES THE USER
THE CORRESPONDING POLLUTANT NAME.

IF YOU WISH A SHORT DESCRIPTION OF THE VALID COMMANDS,
REPLY YES. OTHERWISE, REPLY NO.
YES OR NO?
YES

COMMANDS USED IN THIS PROGRAM ARE:

'POLLUTANT=?????' -THE POLLUTANT CODE FOR WHICH A NAME
                   IS DESIRED
'FIND'            -GET THE POLLUTANT NAME FOR THE CODE
                   GIVEN
'NEXT ??'         -GET THE POLLUTANT NAME FOR THE NEXT
                   SEQUENTIAL POLLUTANT CODE.
```

```
                          IF ?? IS ENTERED AS BLANKS, 01 IS ASSUMED.
                          OTHERWISE, ?? MUST BE A 2 DIGIT NUMBER.
'END'                     -SIGNALS THE END OF PROCESSING
THE ENTIRE COMMAND CAN BE ENTERED OR THE COMMAND CAN
BE ABBREVIATED TO THE FIRST TWO LETTERS OF THE COMMAND.
START  ENTERING COMMANDS

COMMAND?
POLLUTANT=11103

POLLUTANT=11103

COMMAND?
FI

POLLUTANT CODE: 11103
POLLUTANT NAME IS BENZENE SOLUBLE ORGANIC FRACTION

COMMAND?
NE 02

POLLUTANT CODE: 11104
POLLUTANT NAME IS POLYNUCLEAR HYDROCARBONS

POLLUTANT CODE: 11105
POLLUTANT NAME IS WATER SOLUBLE ORGANICS

COMMAND?
PO=43101

POLLUTANT=43101

COMMAND?
FI

POLLUTANT CODE: 43101
POLLUTANT NAME IS TOTAL HYDROCARBON

COMMAND?
NE 02

POLLUTANT CODE: 43102
POLLUTANT NAME IS NON-METHANE HYDROCARBON

POLLUTANT CODE: 43103
POLLUTANT NAME IS GASOLINE

COMMAND?
END

ALL POLLUTANT NAME REQUESTS ANSWERED.
PLEASE CHOOSE THE NEXT FUNCTION YOU WISH TO ACCESS.
```

```
FUNCTION?
END

END SESSION
```

SAROAD SITE DESCRIPTION (S, I, SI)

Description

The site description function is an interactive function that allows the user to retrieve either complete or abbreviated site information for the sites referenced in the SAROAD data bank. Sample of an interactive session using this function is included in this section.

Structured Entries

When the function is first entered, the user may obtain a list of available functional commands by replying "YES" to the prompt, COMMAND LIST. . . .YES OR NO?.

The user is then given the option for abbreviated or full description. The user should select one of the two options and enter either ABBR or FULL in response to the prompt, ABBR or FULL?. This function is now ready to receive functional commands. This fact is indicated by the system response, START ENTERING COMMANDS.

Commands

After the preliminary responses have been entered, the user receives the prompt, COMMAND? The user should select and enter a command word from the list given below. The command word can be entered in its entirety or can be abbreviated to the first two characters of the word ("=" is entered after the first 2 characters where applicable).

The commands for this function are:

COMMAND	DESCRIPTION
STATE=??	2 digit code for the state desired.
AREA=????	4-digit code for the city or county desired.
SITE=???	3 digit code for site desired within the area.
AGENCY=?	1 character code of the sponsoring agency.
PROJECT=??	2 digit code, specifying the type of sampling.
KEY=????????????	12 characters, which is the combination of the above codes in the same order they are given above.
FIND	List the description for the site identified by one or more of the above commands.
NEXT=??	List the description for the next ?? sequential sites. ?? must be a 2-digit number specifying the number of sequential site descriptions desired. If ?? is entered as blanks, the next site description is listed.
END	Signals end of processing.

Special Notes

If a match is not found for the specified site, the fact is indicated and the KEY must be reentered, or a portion of the key may be reentered with the singular commands.

This function operates in an interactive mode. Therefore, the output produced will be displayed on the user's terminal immediately after the FIND or NEXT commands.

"Example Interactive Session"

```
NA206
SAROAD TERMINAL SYSTEM (V.2)  DATE: 08/10/78      TIME: 10:34:50

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION?
SITE

AIR POLLUTION SITE DESCRIPTIONS
COMMAND LIST---YES OR NO?
YES


THE COMMANDS USED BY THIS PROGRAM ARE LISTED BELOW:
'STATE=??'     THE STATE DESIRED
'AREA=????'    THE CODE NUMBER FOR THE CITY OR COUNTY
'SITE=???'     THE SITE NUMBER WITHIN THE AREA
'AGENCY=?'     THE CODE FOR THE SPONSORING AGENCY
'PROJECT=??'   THE CODE FOR THE TYPE OF SAMPLING
'KEY=????????????' (12 CHARACTERS)
               THE COMPLETE KEY IS COMPOSED OF THE CODES ABOVE
               IN THE ORDER GIVEN.
'FIND'         GET THE DESCRIPTION FOR THE SITE SPECIFIED
'NEXT ??'      GET THE DESCRIPTION FOR THE NEXT SEQUENTIAL SITE
               COMBINATION.  IF ?? IS ENTERED AS BLANKS, 01 IS
               ASSUMED, OTHERWISE, ?? MUST BE A 2 DIGIT NUMBER.
'END'          SIGNALS END OF SESSION,PROGRAM ENDS
THE FULL COMMAND CAN BE USED OR THE COMMAND CAN BE
ABBREVIATED TO THE FIRST TWO (2) CHARACTERS.
IF A MATCH IS NOT FOUND FOR THE SPECIFIED SITE, THE FACT
IS INDICATED AND THE KEY MUST BE REENTERED.

PLEASE SPECIFY ABBREVIATED OR FULL DESCRIPTION
ABBR OR FULL?
FULL

START ENTERING COMMANDS

COMMAND?
KE=020160013F01

COMPLETE KEY ='020160013F01'

COMMAND?
FI


SITECODE: 020160013 AGENCY/PROJ:F01 AGENCY-TYPE: STATE            EPA-REG:0
LOCATION: FAIRBANKS                       ,ALASKA             C-POP:    14,771
AQCR(009):NORTHERN ALASKA                                     A-POP:   307,000
SITE ADDR: 604 BARNETTE ST                              LA:  64 D. 50 M. 27 S.N
SMSA(0000):                 LO: 147 D. 43 M. 23 S.W
CNTY(0180): FAIRBANKS ED             UTM-N:7,190,700 M. ELEV-GRD: 010 FT
STN-TYPE  (13):CENTER CITY - COMMERCIAL  UTM-E:  465,700 M. ELEV-MSG:0410 FT
SUPPORT-AGENCY:ALASKA DEPT OF ENVIRONMENTAL CONSERVATION
```

```
COMMENTS:SO SIDE OF STATE OFF BLD 604 BARNETTE ST 180 FT FROM COR OF
         BARNETTE & 7TH AVE
UTM-ZONE: 06  DIFF-GMT: WEST 02 HOURS
COMMAND?
STATE=34

STATE=34

COMMAND?
F1


NO SITE FILE ENTRY FOR   340160013F01  , ENTER VALID KEY

COMMAND?
KE=361220019A05

COMPLETE KEY ='361220019A05'

COMMAND?
F1


SITECODE: 361220019 AGENCY/PROJ:A05 AGENCY-TYPE: EPA/ATMOS. SURV.  EPA-REG:5
LOCATION: CINCINNATI                   ,OHIO                    C-POP:   452,524
AQCR(079):METROPOLITAN CINCINNATI                               A-POP: 1,654,792
SITE ADDR: 1675 GEST STREET                            LA:  39 D, 08 M, 24 S,N
SMSA(1640): CINCINNATI, OHIO-KY.-                      LO: 084 D, 32 M, 47 S,W
CNTY(2720): HAMILTON CO                UTM-N:4,335,000 M, ELEV-GRD: 035 FT
STN-TYPE  (11):CENTER CITY - INDUSTRIAL  UTM-E:  712,050 M, ELEV-MSG:0585 FT
SUPPORT-AGENCY:CITY OF CINCINNATI DIV OF AIR POLLUTION CONTROL
COMMENTS:NO2 SPECIAL STUDY
UTM-ZONE: 16  DIFF-GMT: WEST 05 HOURS
COMMAND?
AGENCY=H

AGENCY=H


COMMAND?
F1


SITECODE: 361220019 AGENCY/PROJ:H05 AGENCY-TYPE: CITY                EPA-REG:5
LOCATION: CINCINNATI                   ,OHIO                    C-POP:   452,524
AQCR(079):METROPOLITAN CINCINNATI                               A-POP: 1,654,792
SITE ADDR: 1675 GEST ST                                LA:  39 D, 08 M, 24 S,N
SMSA(1640): CINCINNATI, OHIO-KY.-                      LO: 084 D, 32 M, 47 S,W
CNTY(2720): HAMILTON CO                UTM-N:4,335,000 M, ELEV-GRD: 015 FT
STN-TYPE  (11):CENTER CITY - INDUSTRIAL  UTM-E:  712,050 M, ELEV-MSG:0525 FT
SUPPORT-AGENCY:CINCINNATI APC
UTM-ZONE: 16  DIFF-GMT: WEST 05 HOURS          COMMENTS:NO COMMENTS.
COMMAND?

KE=56***********

COMPLETE KEY ='56***,*******'
```

```
COMMAND?
F1

NO SITE FILE ENTRY FOR   56***********  , ENTER VALID KEY

COMMAND?
KE=55***********

COMPLETE KEY ='55***********'

COMMAND?
F1

NO SITE FILE ENTRY FOR   55***********  , ENTER VALID KEY

COMMAND?
END

ALL SITE INFORMATION REQUESTS ANSWERED.
PLEASE ENTER THE NEXT FUNCTION YOU WISH TO ACCESS.
FUNCTION?
END

END SESSION
```

SAROAD UNITS TABLE (S, I, UN)

Description

The units table function is an interactive function that will produce the AEROS units table. Sample output of this function is included in this section.

Structured Entries

No structured entries are required by this function.

Command

This function does not have any commands.

Special Notes

This function operates in an interactive mode. Only one table is produced as output which is displayed on the user's terminal immediately after entering the function.

"Example Interactive Session"

```
GNA206
SAROAD TERMINAL SYSTEM (V.2)  DATE: 08/10/78      TIME: 10:08:40

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION?
UNIT


NADB UNITS TABLE

(00)      (UNKNOWN                     )
(01)      (UG/CU METER (25 C)          )
(02)      (UG/CU METER (0  C)          )
(03)      (NG/CU METER (25 C)          )
(04)      (NG/CU METER (0  C)          )
(05)      (MG/CU METER (25 C)          )
(06)      (MG/CU METER (0 C)           )
(07)      (PARTS PER MILLION           )
(08)      (PARTS PER BILLION           )
(09)      (COHS/1,000 LINEAR FT        )
(10)      (RUDS/10,000 LINEAR FT       )
(11)      (METERS/SECOND               )
(12)      (MILES/HOUR                  )
(13)      (KNOTS                       )
(14)      (DEGREES, COMPASS            )
(15)      (DEGREES, FAHRENHEIT         )
(16)      (MILLIBARS                   )
(17)      (DEGREES, CENTIGRADE         )
(18)      (LANGLEYS                    )
(19)      (PER CENT REL. HUMIDITY      )
(20)      (MICRONS                     )
(21)      (INCHES (RAINFALL)           )
(22)      (INCHES(MERCURY)             )
(23)      (MCAL./SQ. CM./MIN.          )
(24)      (MILES (VISIBILITY)          )
(25)      (LANGLEYS/MINUTE             )
(26)      (DEGREES-RANKINE             )
(27)      (BETA SCATTER                )
(28)      (DEGREES CENTIGRADE/100M)
(29)      (MILLIMETERS(RAINFALL)       )
(30)      (PICOCURIES/CU. METER        )
(31)      (MICROCURIES/CU. METER       )
(32)      (PICOCURIES/SQ. METER        )
(33)      (MICROCURIES/SQ. METER       )
(34)      (PICOCURIES/CU. CM.          )
(35)      (PICOCURIES/GRAM             )
(36)      (CALORIES/SQ. CM./HOUR       )
(37)      (DEGREES-KELVIN              )
(40)      (PARTS/HUNDRED MILLION       )
(41)      (MG. SO3/100 SQ. CM./MO.)
(42)      (RUDS/1,000 LINEAR FT.       )
(43)      (GRAMS/SQ. METER/MONTH       )
(44)      (UG/SQ. MILE/MONTH           )
(45)      (TONS/SQ. MI./DAY            )
(46)      (GRAMS/SQ. METER /DAY        )
```

```
(47)        (UG/SQ, METER/DAY       )
(48)        (1000 PARTICULES/SQ, IN,)
(49)        (100 PARTICULES/SQ, IN, )
(50)        (NO, THRESHOLD LEVELS   )
(51)        (% LOSS IN REFLEC./MONTH)
(52)        (MICRONS/WEEK           )
(53)        (# DEFECTS/7.7 SQ, IN,MO)
(54)        (PARTICLES/SQ, MM./WEEK )
(55)        (NBS COLOR DIF, UNITS   )
(56)        (MICRONS/YEAR           )
(61)        (PH UNITS               )
(62)        (MILLIGRAMS/LITER       )
(67)        (MICRO EQUIVALENCE      )
(69)        (MICRO SIEMENS/CM.      )
(70)        (MG, F/100 SQ, CM./DAY  )
(71)        (UG,F/100 SQ, CM./DAY   )
(80)        (MG, SO3/100 SQ, CM./DAY)
(81)        (UG, SO2/SQ, CM./DAY    )
(82)        (UG, SO2/SQ, M./DAY     )
(90)        (TONS/SQ, MI./MONTH     )
(91)        (MG./SQ, CM./MONTH      )
(92)        (UG./CU, M./MONTH       )
(93)        (GRAMS/SQ, METER/MONTH  )
(94)        (POUNDS/SQ, MI, /MONTH  )
(97)        (UG/SQ, CM./30 DAYS     )
(98)        (MG, SO4/SQ, CM./30 DAYS)
(99)        (MG./SQ, CM./30 DAYS    )

UNITS TABLE COMPLETE,  PLEASE ENTER NEXT FUNCTION YOU WISH TO ACCESS.
FUNCTION?
END


END SESSION
@ASG,A NADB*NADB-ABS/SDS.
FACILITY WARNING  000200000000
@COPY,A NADB*NADB-ABS,NA206
FURPUR 27R3C E33 SL73R1 08/10/78 10:13:06
 1 ABS
@FREE NADB*NADB-ABS
READY
```

SAROAD QUARTERLY SUMMARIES (S, I, QS)

Description

The SAROAD Quarterly Summaries is an interactive function which allows the user to retrieve selected summary information for any site for a given pollutant. The following summary information is available:

THE VALID SUMMARY INFORMATION COMMANDS ARE:

ALL	ALL STATISTICS ARE REQUIRED
OBSER	THE NUMBER OF OBSERVATIONS
MIN	THE MINIMUM VALUE ENCOUNTERED
MAX	THE MAXIMUM VALUE ENCOUNTERED
MTIME	TIME MAXIMUM OCCURRED (MM: DA: HR)
SMAX	SECOND MAXIMUM VALUE
TS	TIME SECOND MAXIMUM OCCURRED (MM: DA: HR)
%OBSERV	THE PERCENT OF POSSIBLE OBSERVATIONS THAT ARE PRESENT
ZSUB	ONE HALF THE MINIMUM DETECTABLE
ZCNT	THE NUMBER OF TIMES VALUES OCCURRED THAT WERE LESS THAN THE MINIMUM DETECTABLE

FOR INTERVALS OTHER THAN 3, 8 and 24 HOUR RUNNING AVERAGES--

AMEAN	THE ARITHMETIC MEAN
GMEAN	THE GEOMETRIC MEAN
ASTDEV	THE ARITHMETIC STANDARD DEVIATION
GSTDEV	THE GEOMETRIC STANDARD DEVIATION
PVIOL	NUMBER OF PRIMARY VIOLATIONS (BLANK IF NO STANDARD)

SVIOL	NUMBER OF SECONDARY VIOLATIONS (BLANK IF NO STANDARD)

FOR 3, 8 and 24 HOUR RUNNING AVERAGES--

NPRI	NUMBER OF NON-OVERLAPPING PRIMARY VIOLATIONS
NSEC	NUMBER OF NON-OVERLAPPING SECONDARY VIOLATIONS
OP	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE PRIMARY STANDARD
OS	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE SECONDARY STANDARD

VALID SUMMARIZATION CRITERIA COMMANDS ARE:

CR	SELECT ONLY CRITERIA DATA
NC	SELECT ONLY NON-CRITERIA DATA
BB	SELECT BOTH CRITERIA AND NON-CRITERIA DATA BLANK STATISTICS FOR NON-CRITERIA DATA
BF	SELECT BOTH CRITERIA AND NON-CRITERIA DATA FLAG NON-CRITERIA DATA

Structured Entries

When the Quarterly Summaries (QS) function is entered, the user may ask for a listing of the available commands by responding 'YES' to the display 'COMMAND LIST---YES OR NO?'.

When the program is ready for accepting commands, it will display 'START ENTERING COMMANDS'.

Commands

After the preliminary responses have been processed, the user is prompted by the display, COMMAND? The user should select and enter a command word from the list which follows. The command word can be entered in its entirety or can be abbreviated to the first two characters of the word. Where '=' is present in the command, it should appear after the first two characters if the abbreviated mode is being used; otherwise, the '=' should follow the full name of the command.

THE VALID REPORT TYPES ARE:

KR	KEYS QUALIFYING REPORT
QR	QUARTERLY SUMMARIES REPORT

THE VALID SITE-POLLUTANT COMMANDS ARE:

STATE=??	THE STATE DESIRED
AREA=????	THE CODE NUMBER FOR THE CITY OR COUNTY
SITE=???	THE SITE NUMBER WITHIN THE AREA
AGENCY=?	THE CODE FOR THE SPONSORING AGENCY
PROJECT=??	THE CODE FOR THE TYPE OF SAMPLING
POLLUTANT=?????	THE CODE FOR THE DESIRED POLLUTANT
METHOD=??	THE CODE FOR THE SAMPLING METHOD
INTERVAL=?	THE CODE FOR THE SAMPLING INTERVAL
BYEAR=??	BEGINNING YEAR DESIRED
BQUARTER=??	BEGINNING QUARTER DESIRED
BDAY=??	NOT USED. ENTER **.
EYEAR=??	ENDING YEAR DESIRED

EQUARTER=??	ENDING QUARTER DESIRED
EDAY=??	NOT USED. ENTER **
KEY=???....	THE COMPLETE KEY IN THE ORDER GIVEN ABOVE (32 CHARACTERS)

THE VALID SUMMARY INFORMATION COMMANDS ARE:

ALL	ALL STATISTICS ARE REQUIRED
OBSERV	THE NUMBER OF OBSERVATIONS
MIN	THE MINIMUM VALUE ENCOUNTERED
MAX	THE MAXIMUM VALUE ENCOUNTERED
MTIME	TIME MAXIMUM OCCURRED (MM: DA: HR)
SMAX	SECOND MAXIMUM VALUE
TS	TIME SECOND MAXIMUM OCCURRED (MM: DA: HR)
%OBSERV	THE PERCENT OF POSSIBLE OBSERVATIONS THAT ARE PRESENT
ZSUB	ONE HALF THE MINIMUM DETECTABLE
ZCNT	THE NUMBER OF TIMES VALUES OCCURRED THAT WERE LESS THAN THE MINIMUM DETECTABLE

FOR INTERVALS OTHER THAN 3, 8 and 24 HOUR RUNNING AVERAGES--

AMEAN	THE ARITHMETIC MEAN
GMEAN	THE GEOMETRIC MEAN
ASTDEV	THE ARITHMETIC STANDARD DEVIATION
GSTDEV	THE GEOMETRIC STANDARD DEVIATION
PVIOL	NUMBER OF PRIMARY VIOLATIONS (BLANK IF NO STANDARD)
SVIOL	NUMBER OF SECONDARY VIOLATIONS (BLANK IF NO STANDARD)

For 3, 8 and 24 HOUR RUNNING AVERAGES--

NPRI	NUMBER OF NON-OVERLAPPING PRIMARY VIOLATIONS
NSEC	NUMBER OF NON-OVERLAPPING SECONDARY VIOLATIONS
OP	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE PRIMARY STANDARD
OS	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE SECONDARY STANDARD

VALID SUMMARIZATION CRITERIA COMMANDS ARE:

CR	SELECT ONLY CRITERIA DATA
NC	SELECT ONLY NON-CRITERIA DATA
BB	SELECT BOTH CRITERIA AND NON-CRITERIA DATA BLANK STATISTICS FOR NON-CRITERIA DATA
BF	SELECT BOTH CRITERIA AND NON-CRITERIA DATA FLAG NON-CRITERIA DATA

THE VALID COMMANDS FOR PROGRAM DIRECTION ARE:

FIND	(QR)	GETS THE FIRST SEQUENTIAL RECORD OF THE QUARTERLY SUMMARY INFORMATION CONTAINING THE USER INPUT KEY
	(KR)	GETS ALL THE RECORD KEYS OF THE QUARTERLY SUMMARY FILE CONTAINING THE USER INPUT KEY
NEXT ??	(QR)	1. GETS THE NEXT SEQUENTIAL RECORD OF THE QUARTERLY SUMMARY INFORMATION OF THE SUBSET CONTAINING THE USER INPUT KEY. ?? IS THE NUMBER OF RECORDS WANTED.
	(QR)	2. IF NO MATCH ON 'FIND' COMMAND. A NEW KEY MUST BE ENTERED.

XKEY	FILLS CURRENT USER KEY WITH ALL ASTERISKS
?KEY	ALLOWS THE USER TO LOOK AT CURRENT USER KEY.
HELP	LISTS ALL VALID COMMANDS
END	SIGNALS END OF SESSION. PROGRAM ENDS.

The following is a discussion of the commands.

Commands may be entered in any sequence. Once a command is entered, it is altered only through deliberate action on a particular command on the part of the user.

Enter the valid commands as follows:

1. Site-pollutant User Key Commands (referred to as key commands) - The key commands may be entered individually or entered in entirety by using the 'KEY=' command. The user may enter the entire command or the first two letters. The key to be entered may be a full key, a hierarchial key, or a partial key. In all instances, the STATE must be present. When entering the key fields individually (STATE=?? or ST=??, AREA=???? or AR=????, etc.), the key fields entered previously will remain the same unless overlaid with new key field information. Initially, all key entry fields are set to asterisks (don't care entries). If the user desires a key field to be blanked out and no data to be re-entered, simply enter the key command accompanied by asterisks for the number of field positions to be blanked out. For example, if you want 'AREA' blanked out, enter AREA=****. When using the KEY= command entry, enter asterisks in the 'don't care' fields. Note: Use the command ?KEY to look at the current user key at any time.

2. Summary Information Commands - Initially, the Quarterly Summaries Report is set up not to print any of the summary information. (Keys Qualifying Report does not use these commands). To request the particular summary information desired, enter the correct summary information command. The command, ALL, selects all summary information. The user may enter the entire command or the first two (2) characters. To negate a summary information command, three (3) characters are required. Enter the command preceded by X. For example, XALL negates all summary information commands, XOS negates OS, etc.
3. Summarization Criteria Commands - The user may select criteria or non-criteria data or both at any point in the session. If the user selects both types of data, non-criteria data can either be printed or blanked out. These commands are applicable to the Quarterly Summaries Report only. If no selection is made, the program defaults to BB which selects both criteria and non-criteria data. Enter the two character selection code after COMMAND? To negate the command, enter the command preceded by an X such as XBF; and the criteria then defaults to BB. Also, another criteria command may be entered, thus negating the previous criteria selection.
4. Report Type Commands - Selection of either report type may be entered interchangeably throughout the interactive session. No other commands are altered even though they may not be used by a particular report. Initially, the program defaults to the Quarterly Summaries Report, but may be immediately changed to the Keys Qualifying Report if desired.
5. Program Direction Commands - These commands perform a particular function in directing the program and are negated by the entry of a new command of any type.

A. HELP - By entering HELP after COMMAND?, a list of all valid commands will be given.

B. XKEY - Fills current user key with asterisks (clears key).

C. ?KEY - Allows the user to look at the current user key.

D. END - Signals the end of processing of the Quarterly Summaries requests. Program Control is returned to the master calling program, and a new function may be entered.

E. FIND

1. Quarterly Summaries Report - Once the site-pollutant key commands, summary commands, and summarization criteria commands have been entered, the FIND command is issued to find the 1st sequential record of the summary-frequency file containing the desired user key information. See NEXT for more information.

2. Keys Qualifying Report - Once the key commands are entered, the FIND command searches the summary-frequency file to retrieve a list of all keys containing the user input key.

F. NEXT ??

1. Quarterly Summaries Report (QR)

A. NEXT ?? gets the next sequential records of the summary-frequency file information of the subset containing the user input key. ?? is the number of records wanted. If ?? is blank, the next sequential matching record will be retrieved.

B. If the user key has no match on the FIND command, a message will be entered prompting the user to enter a new key.

Negate valid commands as follows:

1. Key Commands - To alter key commands, simply re-enter the command accompanied by the new data. To blank out a key command, enter the command accompanied by all asterisks for the number of positions of data. XKEY negates all key commands.
2. Summary Information Commands - To negate these commands, enter the command preceded by X. For example, XALL negates all summary information commands, XOBSERV negates OBSERV, etc.
3. Summarization Criteria Commands - To negate these commands, enter the command preceded by X. The criteria then defaults to 'BB" unless a new summarization criteria command is entered.
4. Report Type Commands - The report type stays the same until a new report type code is entered. Other command data is not altered.
5. Program Direction Commands - These commands perform a particular function and are negated by the entry of a new program direction command or any other command.

"Example Interactive Session"

```
@NA206
SAROAD TERMINAL SYSTEM (V.2)  DATE: 08/10/78      TIME: 10:42:12

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION?
05

AIR POLLUTION QUARTERLY DATA SUMMARY REQUESTS

COMMAND LIST---YES OR NO?

YES

THE VALID REPORT TYPES ARE:

'KR'                KEYS QUALIFYING REPORT
'QR'                QUARTERLY SUMMARIES REPORT

THE VALID SITE-POLLUTANT COMMANDS ARE:

'STATE=??'          THE STATE DESIRED
'AREA=????'         THE CODE NUMBER FOR THE CITY OR COUNTY
'SITE=???'          THE SITE NUMBER WITHIN THE AREA
'AGENCY=?'          THE CODE FOR THE SPONSORING AGENCY
'PROJECT=??'        THE CODE FOR THE TYPE OF SAMPLING
'POLLUTANT=?????'   THE CODE FOR THE DESIRED POLLUTANT
'METHOD=??'         THE CODE FOR THE SAMPLING METHOD
'INTERVAL=?'        THE CODE FOR THE SAMPLING INTERVAL
'BYEAR=??'          BEGINNING YEAR DESIRED
'BQUARTER=??'       BEGINNING QUARTER DESIRED
'BDAY=??'           NOT USED, ENTER **.
'EYEAR=??'          ENDING YEAR DESIRED
'EQUARTER=??'       ENDING QUARTER DESIRED
'EDAY=??'           NOT USED, ENTER **.
'KEY=???...'        THE COMPLETE OR PARTIAL KEY IN THE ORDER GIVEN ABOVE

THE VALID SUMMARY INFORMATION COMMANDS ARE:

'ALL'               ALL STATISTICS ARE REQUIRED
'OBSERV'            THE NUMBER OF OBSERVATIONS
'MIN'               THE MINIMUM VALUE ENCOUNTERED
'MAX'               THE MAXIMUM VALUE ENCOUNTERED
'MTIME'             TIME MAXIMUM OCCURRED (MM:DA:HR)
'SMAX'              SECOND MAXIMUM VALUE
'TS'                TIME SECOND MAXIMUM OCCURRED (MM:DA:HR)
'%OBSERV'           THE PERCENT OF POSSIBLE OBSERVATIONS THAT ARE PRESENT
'ZSUB'              ONE HALF THE MINIMUM DETECTABLE
'ZCNT'              THE NUMBER OF TIMES VALUES OCCURRED THAT WERE LESS
                    THAN THE MINIMUM DETECTABLE

FOR INTERVALS OTHER THAN 3, 8 AND 24 HOUR RUNNING AVERAGES--

'AMEAN'             THE ARITHMETIC MEAN
'GMEAN'             THE GEOMETRIC MEAN
'ASTDEV'            THE ARITHMETIC STANDARD DEVIATION
```

```
'GSTDEV'            THE GEOMETRIC STANDARD DEVIATION
'PVIOL'             NUMBER OF PRIMARY VIOLATIONS
                    (BLANK IF NO STANDARD)
'SVIOL'             NUMBER OF SECONDARY VIOLATIONS
                    (BLANK IF NO STANDARD)

FOR 3, 8 AND 24 HOUR RUNNING AVERAGES--

'NPRI'              NUMBER OF NON-OVERLAPPING PRIMARY VIOLATIONS
'NSEC'              NUMBER OF NON-OVERLAPPING SECONDARY VIOLATIONS
'OP'                NUMBER OF OVERLAPPING VALUES THAT EXCEEDED
                    THE PRIMARY STANDARD
'OS'                NUMBER OF OVERLAPPING VALUES THAT EXCEEDED
                    THE SECONDARY STANDARD

VALID SUMMARIZATION CRITERIA COMMANDS ARE:

'CR'                SELECT ONLY CRITERIA DATA
'NC'                SELECT ONLY NON-CRITERIA DATA
'BB'                SELECT BOTH CRITERIA AND NON-CRITERIA DATA,
                    BLANK STATISTICS FOR NON-CRITERIA DATA,
'BF'                SELECT BOTH CRITERIA AND NON-CRITERIA DATA,
                    FLAG NON-CRITERIA DATA,

THE VALID COMMANDS FOR PROGRAM DIRECTION ARE:

'FIND'        (QR) GETS THE FIRST SEQUENTIAL RECORD OF THE
                   QUARTERLY SUMMARY INFORMATION CONTAINING
                   THE USER INPUT KEY,
              (KR) GETS ALL THE RECORD KEYS OF THE QUARTERLY
                   SUMMARY FILE CONTAINING THE USER INPUT KEY
'NEXT ??'     (QR) 1, GETS THE NEXT SEQUENTIAL RECORD OF THE QUARTERLY
                   SUMMARY INFORMATION OF THE SUBSET CONTAINING THE USER
                   INPUT KEY, ?? IS THE NUMBER OF RECORDS WANTED,
              (QR) 2, IF NO MATCH ON 'FIND' COMMAND, A NEW KEY MUST
                   BE INPUT,
'?KEY'             ALLOWS USER TO LOOK AT CURRENT USER KEY
'XKEY'             FILLS USER KEY WITH ALL ASTERISKS
'HELP'             LISTS ALL COMMANDS,
'END'              SIGNALS END OF SESSION, PROGRAM ENDS,

START ENTERING COMMANDS

COMMAND?

KR

KR = KEYS QUALIFYING REPORT

COMMAND?

KE=020160***F**42101***750300760200

COMPLETE KEY=020160***F**42101***750300760200

COMMAND?

F1
```

```
KEYS QUALIFYING REPORT

                  ST  AREA  SITE A  PR  POLL   ME  I BEG DATE END DATE
KEY ENTERED:      02  0160  ***  F  **  42101  **  *  7503**   7602**

                  ST  AREA  SITE A  PR  POLL   ME  I  DATE
KEYS MATCHING:    02  0160  013  F  01  42101  11  1  75/03
                  02  0160  013  F  01  42101  11  1  75/04
                  02  0160  013  F  01  42101  11  1  76/01
                  02  0160  013  F  01  42101  11  1  76/02
                  02  0160  013  F  01  42101  11  2  75/03
                  02  0160  013  F  01  42101  11  2  75/04
                  02  0160  013  F  01  42101  11  2  76/01
                  02  0160  013  F  01  42101  11  2  76/02

NO. MATCHING KEYS:        8

COMMAND?

QR

QR = QUARTERLY SUMMARIES REPORT

COMMAND?

KE=020160013F014210111*750400750400

COMPLETE KEY=020160013F014210111*750400750400

COMMAND?

FI


SITECODE=020160013F01   FAIRBANKS                 ,ALASKA
POLL/ME=42101!1         UNITS=05    INT=1    YR=75   QR=04
CARBON    MONOXIDE      INSTRUMENTAL  NONDISPERSIVE INFRA-RED


COMMAND?

ALL

ALL

COMMAND?

NE

NEXT HIGHER SEQUENTIAL RECORD AFTER USER INPUT KEY
```

```
SITECODE=020160013F01   FAIRBANKS                ,ALASKA
POLL/ME=4210111         UNITS=05    INT=Z    YR=75   QR=01
CARBON    MONOXIDE      INSTRUMENTAL  NONDISPERSIVE INFRA-RED
# OBSERVATIONS=                                1807
MAXIMUM=                                       30,6
MINIMUM=                                         ,3
SUBSTITUTE VALUE=                                ,3
# SUBSTITUTIONS MADE=                             0
# SECONDARY VIOLATIONS=                         153
# NON-OVLP PRI-VIOLATIONS =                      26
# NON-OVLP SEC-VIOLATIONS =                      26
TIME MAXIMUM OCCURRED=                     01:22:18
TIME SECOND MAXIMUM OCCURRED=              01:22:22
SECOND MAXIMUM VALUE=                          23,7
# OVLP VALS EXCEEDING PRIMARY=                  153
# OVLP VALS EXCEEDING SECONDARY=                153


SITECODE=020160013F01   FAIRBANKS                ,ALASKA
POLL/ME=4210111         UNITS=05    INT=Z    YR=75   QR=02
CARBON    MONOXIDE      INSTRUMENTAL  NONDISPERSIVE INFRA-RED
# OBSERVATIONS=                                1688

MAXIMUM=                                        4,2
MINIMUM=                                         ,3
SUBSTITUTE VALUE=                                ,3
# SUBSTITUTIONS MADE=                             0
# SECONDARY VIOLATIONS=                           0
# NON-OVLP PRI-VIOLATIONS =                       0
# NON-OVLP SEC-VIOLATIONS =                       0
TIME MAXIMUM OCCURRED=                     04:04:13
TIME SECOND MAXIMUM OCCURRED=              04:03:12
SECOND MAXIMUM VALUE=                           4,0
# OVLP VALS EXCEEDING PRIMARY=                    0
# OVLP VALS EXCEEDING SECONDARY=                  0


SITECODE=020160013F01   FAIRBANKS                ,ALASKA
POLL/ME=4210111         UNITS=05    INT=Z    YR=75   QR=03
CARBON    MONOXIDE      INSTRUMENTAL  NONDISPERSIVE INFRA-RED
# OBSERVATIONS=                                1946
MAXIMUM=                                        3,7
MINIMUM=                                         ,3
SUBSTITUTE VALUE=                                ,3
# SUBSTITUTIONS MADE=                             0
# SECONDARY VIOLATIONS=                           0
# NON-OVLP PRI-VIOLATIONS =                       0
# NON-OVLP SEC-VIOLATIONS =                       0
TIME MAXIMUM OCCURRED=                     07:23:22
TIME SECOND MAXIMUM OCCURRED=              09:17:18
SECOND MAXIMUM VALUE=                           3,7
# OVLP VALS EXCEEDING PRIMARY=                    0
# OVLP VALS EXCEEDING SECONDARY=                0


SITECODE=020160013F01   FAIRBANKS           ,ALASKA
POLL/ME=4210111         UNITS=05   INT=Z    YR=75   QR=04
CARBON    MONOXIDE      INSTRUMENTAL  NONDISPERSIVE INFRA-RED
# OBSERVATIONS=                              1729
MAXIMUM=                                     27.3
MINIMUM=                                       .3
SUBSTITUTE VALUE=                              .3
# SUBSTITUTIONS MADE=                           0
# SECONDARY VIOLATIONS=                       191
# NON-OVLP PRI-VIOLATIONS =                    39
# NON-OVLP SEC-VIOLATIONS =                    39
TIME MAXIMUM OCCURRED=                   12123120
TIME SECOND MAXIMUM OCCURRED=            12123116
SECOND MAXIMUM VALUE=                        20.1
# OVLP VALS EXCEEDING PRIMARY=                191
# OVLP VALS EXCEEDING SECONDARY=              191
,

COMMAND?

KE=364340004H01442011117503007S0400

COMPLETE KEY=364340004H01442011117503007S0400

COMMAND?

XALL

XALL

COMMAND?

PVIOL

PVIOL

COMMAND?

MAX

MAX

COMMAND?

MTIME

MTIME

COMMAND?

?KE

V V   V  VV V    V VV V V V V V
```

```
364340004H014420111:750300750400

COMMAND?

F1


SITECODE=364340004H01   MIDDLETOWN          ,OHIO
POLL/ME=4420111         UNITS=01   INT=1    YR=75   QR=03
OZONE                   INSTRUMENTAL  CHEMILUMINESCENCE
MAXIMUM=                                 307.720
# PRIMARY VIOLATIONS=                        135
TIME MAXIMUM OCCURRED=                  07:22:17


SITECODE=364340004H01   MIDDLETOWN          ,OHIO
POLL/ME=4420111         UNITS=01   INT=1    YR=75   QR=04
OZONE                   INSTRUMENTAL  CHEMILUMINESCENCE
MAXIMUM=                                 150.920
# PRIMARY VIOLATIONS=                          0
TIME MAXIMUM OCCURRED=                  10:21:15

COMMAND?

XKE

V V   V  VV V    V VV V V V V V
****:*********:***/***********:****'

COMMAND?

STATE=50

STATE=50

COMMAND?

POLLUTANT=44201

POLLUTANT=44201

COMMAND?

BYEAR=76

BYEAR=76

COMMAND?

EYEAR=77

EYEAR=77
```

```
COMMAND?

KR

KR = KEYS QUALIFYING REPORT

COMMAND?

/KE
INVALID COMMAND /KE

COMMAND?

?KE

V V    V  VV V     V VV V V V V V
50***********44201***76****77****

COMMAND?

FI

KEYS QUALIFYING REPORT

                   ST  AREA  SITE A  PR  POLL   ME  I  BEG.DATE END.DATE
KEY ENTERED:       50  ****  ***  *  **  44201  **  *   76****   77****

                   ST  AREA  SITE A  PR  POLL   ME  I  DATE
KEYS MATCHING:     50  0280  004  F  01  44201  11  1  77/01
                 * 50  0280  004  F  01  44201  11  1  77/02
                   50  0280  004  F  01  44201  11  1  77/03
                   50  0280  004  F  01  44201  11  1  77/04

NO. MATCHING KEYS:        4

*=DATA DOES NOT MEET SUMMARY CRIT.-OAQPS GUIDELINE 1.2-040.

COMMAND?

QR

QR = QUARTERLY SUMMARIES REPORT

COMMAND?

BQUARTER=02

BQUARTER=02

COMMAND?

EQUARTER=03

EQUARTER=03

COMMAND?

FI
```

```
                                        CHARLESTON               ,WEST VIRGINIA
SITECODE=500280004F01                                             YR=77    QR=02
POLL/ME=4420111                       UNITS=01      INT=1
                                      INSTRUMENTAL   CHEMILUMINESCENCE
OZONE                                                       192
MAXIMUM=                                                      5
# PRIMARY VIOLATIONS=                                   06:16:13
TIME MAXIMUM OCCURRED=


                                        CHARLESTON               ,WEST VIRGINIA
SITECODE=500280004F01                                             YR=77    QR=03
POLL/ME=4420111                       UNITS=01      INT=1
                                      INSTRUMENTAL   CHEMILUMINESCENCE
OZONE                                                       282
MAXIMUM=                                                     41
# PRIMARY VIOLATIONS=                                   07:18:16
TIME MAXIMUM OCCURRED=

COMMAND?

XMAX

XMAX

COMMAND?

XPVIOL

XPVIOL

COMMAND?

XMTIME

XMTIME

COMMAND?

KE=030380001F024240114Y750400750400

COMPLETE KEY=030380001F024240114Y750400750400

COMMAND?

ALL

ALL

COMMAND?

BF

BF
```

```
COMMAND?

F1


SITECODE=030380001F02   GREENLEE CO          ,ARIZONA
POLL/ME=4240114         UNITS=01   INT=Y    YR=75   QR=04
SULFUR    DIOXIDE       INSTRUMENTAL  COULOMETRIC
# OBSERVATIONS=                               2033
MAXIMUM=                                      2933
MINIMUM=                                         3
SUBSTITUTE VALUE=                                3
# SUBSTITUTIONS MADE=                            0
# SECONDARY VIOLATIONS=                         63
# NON-OVLP PRI-VIOLATIONS =                      0
# NON-OVLP SEC-VIOLATIONS =                     32
TIME MAXIMUM OCCURRED=                    12:22:06
TIME SECOND MAXIMUM OCCURRED=             12:12:12
SECOND MAXIMUM VALUE=                         2850
# OVLP VALS EXCEEDING PRIMARY=                   0
# OVLP VALS EXCEEDING SECONDARY=                63


COMMAND?

END

QUARTERLY SUMMARY REQUESTS COMPLETED.
ENTER NEXT FUNCTION YOU WISH TO ACCESS
FUNCTION?
END

END SESSION
```

SAROAD YEARLY SUMMARIES (S, I, YS)

Description

The SAROAD Yearly Summaries is an interactive function which allows the user to retrieve selected summary information for any site for a given pollutant. The following summary information is available:

THE VALID SUMMARY INFORMATION COMMANDS ARE:

ALL	ALL STATISTICS ARE REQUIRED
OBSERV	THE NUMBER OF OBSERVATIONS
MIN	THE MINIMUM VALUE ENCOUNTERED
MAX	THE MAXIMUM VALUE ENCOUNTERED
MTIME	TIME MAXIMUM OCCURRED (MM: DA: HR)
SMAX	SECOND MAXIMUM VALUE
TS	TIME SECOND MAXIMUM OCCURRED (MM: DA: HR)
%OBSERV	THE PERCENT OF POSSIBLE OBSERVATIONS THAT ARE PRESENT
ZSUB	ONE HALF THE MINIMUM DETECTABLE
ZCNT	THE NUMBER OF TIMES VALUES OCCURRED THAT WERE LESS THAN THE MINIMUM DETECTABLE

FOR INTERVALS OTHER THAN 3, 8 and 24 Hour Running Averages--

AMEAN	THE ARITHMETIC MEAN
GMEAN	THE GEOMETRIC MEAN
ASTDEV	THE ARITHMETIC STANDARD DEVIATION

GSTDEV	THE GEOMETRIC STANDARD DEVIATION
PVIOL	NUMBER OF PRIMARY VIOLATIONS (BLANK IF NO STANDARD)
SVIOL	NUMBER OF SECONDARY VIOLATIONS (BLANK IF NO STANDARD)

FOR 3, 8 and 24 Hour Running Averages--

NPRI	NUMBER OF NON-OVERLAPPING PRIMARY VIOLATIONS
NSEC	NUMBER OF NON-OVERLAPPING SECONDARY VIOLATIONS
OP	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE PRIMARY STANDARD
OS	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE SECONDARY STANDARD

VALID SUMMARIZATION CRITERIA COMMANDS ARE:

CR	SELECT ONLY CRITERIA DATA
NC	SELECT ONLY NON-CRITERIA DATA
BB	SELECT BOTH CRITERIA AND NON-CRITERIA DATA BLANK STATISTICS FOR NON-CRITERIA DATA
BF	SELECT BOTH CRITERIA AND NON-CRITERIA DATA FLAG NON-CRITERIA DATA.

Structured Entries

When the Yearly Summaries (YS) function is entered, the user may ask for a listing of the available commands by responding 'YES' to the display 'COMMAND LIST---YES OR NO?'.

When the program is ready for accepting commands, it will display 'START ENTERING COMMANDS'.

Commands

After the preliminary responses have been processed, the user is prompted by the display, COMMAND? The user should select and enter a command word from the list which follows. The command word can be entered in its entirety or can be abbreviated to the first two characters of the word. Where '=' is present in the command, it should appear after the first two characters if the abbreviated mode is being used; otherwise, the '=' should follow the full name of the command.

THE VALID REPORT TYPES ARE:

KR	KEYS QUALIFYING REPORT
YR	YEARLY SUMMARIES REPORT

THE VALID SITE-POLLUTANT COMMANDS ARE:

STATE=??	THE STATE DESIRED
AREA=????	THE CODE NUMBER FOR THE CITY OR COUNTY
SITE=???	THE SITE NUMBER WITHIN THE AREA
AGENCY=?	THE CODE FOR THE SPONSORING AGENCY
PROJECT=??	THE CODE FOR THE TYPE OF SAMPLING
POLLUTANT=?????	THE CODE FOR THE DESIRED POLLUTANT
METHOD=??	THE CODE FOR THE SAMPLING METHOD
INTERVAL=?	THE CODE FOR THE SAMPLING INTERVAL
BYEAR=??	BEGINNING YEAR DESIRED
BQUARTER=??	NOT USED. ENTER**.

BDAY=??	NOT USED. ENTER**.
EYEAR=??	ENDING YEAR DESIRED
EQUARTER=??	NOT USED. ENTER**.
EDAY=??	NOT USED. ENTER**.
KEY=???....	THE COMPLETE KEY IN THE ORDER GIVEN ABOVE (32 CHARACTERS)

The VALID SUMMARY INFORMATION COMMANDS ARE:

ALL	ALL STATISTICS ARE REQUIRED
OBSERV	THE NUMBER OF OBSERVATIONS
MIN	THE MINIMUM VALUE ENCOUNTERED
MAX	THE MAXIMUM VALUE ENCOUNTERED
MTIME	TIME MAXIMUM OCCURED (MM: DA: HR)
SMAX	SECOND MAXIMUM VALUE
TS	TIME SECOND MAXIMUM OCCURRED (MM: DA: HR)
%OBSERV	THE PERCENT OF POSSIBLE OBSERVATIONS THAT ARE PRESENT
ZSUB	ONE HALF THE MINIMUM DETECTABLE
ZCNT	THE NUMBER OF TIMES VALUES OCCURRED THAT WERE LESS THAN THE MINIMUM DETECTABLE

FOR INTERVALS OTHER THAN 3, 8 and 24 HOUR RUNNING AVERAGES--

AMEAN	THE ARITHMETIC MEAN
GMEAN	THE GEOMETRIC MEAN
ASTDEV	THE ARITHMETIC STANDARD DEVIATION
GSTDEV	THE GEOMETRIC STANDARD DEVIATION
PVIOL	NUMBER OF PRIMARY VIOLATIONS (BLANK IF NO STANDARD)
SVIOL	NUMBER OF SECONDARY VIOLATIONS (BLANK IF NO STANDARD)

FOR 3, 8 and 24 HOUR RUNNING AVERAGES--

NPRI	NUMBER OF NON-OVERLAPPING PRIMARY VIOLATIONS
NSEC	NUMBER OF NON-OVERLAPPING SECONDARY VIOLATIONS
OP	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE PRIMARY STANDARD
OS	NUMBER OF OVERLAPPING VALUES THAT EXCEEDED THE SECONDARY STANDARD

VALID SUMMARIZATION CRITERIA COMMANDS ARE:

CR	SELECT ONLY CRITERIA DATA
NC	SELECT ONLY NON-CRITERIA DATA
BB	SELECT BOTH CRITERIA AND NON-CRITERIA DATA BLANK STATISTICS FOR NON-CRITERIA DATA
BF	SELECT BOTH CRITERIA AND NON-CRITERIA DATA FLAG NON-CRITERIA DATA

THE VALID COMMANDS FOR PROGRAM DIRECTION ARE:

FIND	(YR)	GETS THE FIRST SEQUENTIAL RECORD OF THE YEARLY SUMMARY INFORMATION CONTAINING THE USER INPUT KEY
	(KR)	GETS ALL THE RECORD KEYS OF THE YEARLY SUMMARY FILE CONTAINING THE USER INPUT KEY

NEXT??	(YR)	1. GETS THE NEXT SEQUENTIAL RECORD OF THE YEARLY SUMMARY INFORMATION OF THE SUBSET CONTAINING THE USER INPUT KEY. ?? IS THE NUMBER OF RECORDS WANTED
	(YR)	2. IF NO MATCH ON 'FIND' COMMAND, A NEW KEY MUST BE ENTERED.
XKEY		FILLS CURRENT USER KEY WITH ALL ASTERISKS
?KEY		ALLOWS THE USER TO LOOK AT CURRENT USER KEY.
HELP		LISTS ALL VALID COMMANDS
END		SIGNALS END OF SESSION. PROGRAM ENDS.

The following is a discussion of the commands.

Commands may be entered in any sequence. Once a command is entered, it is altered only through deliberate action on a particular command on the part of the user.

Enter the valid commands as follows:

1. Site-pollutant User Key Commands (referred to as key commands) - The key commands may be entered individually or entered in entirety by using the 'KEY=' command. The user may enter the entire command or the first two letters. The key to be entered may be a full key, a hierarchial key, or a partial key. In all instances, the STATE must be present. When entering the key fields individually

(STATE=?? or ST=??, AREA=???? or AR=????, etc), the key fields entered previously will remain the same unless overlaid with new key field information. Initially, all key entry fields are set to asterisks (don't care entries). If the user desires a key field to be blanked out and no data to be re-entered, simply enter the key command accompanied by asterisks for the number of field positions to be blanked out. For example, if you want 'AREA' blanked out, enter AREA=****. When using the KEY= command entry, enter asterisks in the 'don't care' fields. Note: Use the command ?KEY to look at the current user key at any time.

2. Summary Information Commands - Initially, the Yearly Summaries Report is set up not to print any of the summary information. (Keys Qualifying Report does not use these commands.) To request the particular summary information desired, enter the correct summary information command. The command ALL selects all summary information. The user may enter the entire command or the first two(2) characters. To negate a summary information command, three characters are required. Enter the command preceded by X. For example, XALL negates all summary information commands, XOS negate OS, etc.
3. Summarization Criteria Commands - The user may select criteria or non-criteria data or both at any point in the session. If the user selects both types of data, non-criteria data can either be printed or blanked out. These commands are applicable to the Yearly Summaries Report only. If no selection is made, the program defaults to BB, which selects both criteria and non-critieria data. Enter the two character selection code after COMMAND? To negate

the command, enter the command preceded by an X such as XBF and the criteria then defaults to BB. Also, another criteria command may be entered, thus negating the previous criteria selection.

4. Report Type Commands - Selection of either report type may be entered interchangeably throughout the interactive session. No other commands are altered even though they may not be used by a particular report. Initially, the program defaults to the Yearly Summaries Report, but may be immediately changed to the Keys Qualifying Report if desired.

5. Program Direction Commands - These commands perform a particular function in directing the program and are negated by the entry of a new command of any type.

A. HELP - By entering HELP after COMMAND?, a list of all valid commands will be given.

B. XKEY - Fills current user key with asterisks (clears key).

C. ?KEY - Allows the user to look at the current user key.

D. END - Signals the end of processing of the Yearly Summaries requests. Program control is returned to the master calling program, and a new function may be entered.

E. FIND

   1. Yearly Summaries Report - Once the site-pollutant key commands, summary commands, and summarization criteria commands have been entered, the FIND command is issued to find the 1st sequential record of the summary-frequency file containing the desired user

key information. See NEXT for more information.

2. Keys Qualifying Report - Once the key commands are entered, the FIND command searches the summary-frequency file to retrieve a list of all keys containing the user input key.

F. NEXT ??

1. Yearly Summaries Report (YR)

A. NEXT ?? gets the next sequential records of the summary-frequency file information of the subset containing the user input key. ?? is the number of records wanted. If ?? is blank, the next sequential matching record will be retrieved.

B. If the user key has no match on the FIND command, a message will be printed prompting user to enter a new key.

Negate valid commands as follows:

1. Key Commands - To alter key commands simply re-enter the command accompanied by the new data. To blank out a key command, enter the command accompanied by all asterisks for the number of positions of data. XKEY negates all key commands.
2. Summary Information Commands - To negate these commands, enter the command preceded by X. For example, XALL negates all summary information commands, XOBSERV negates OBSERV, etc.

3. Summarization Criteria Commands - To negate these commands enter the command preceded by X. The criteria then default to 'BB' unless a new summarization criteria command is entered
4. Report Type Commands - The report type stays the same until a new report type code is entered. Other command data is not altered.
5. Program Direction Commands - These commands perform a particular funtion and are negated by the entry of a new program direction command or any other command.

"Example Interactive Session"

```
WNA206
SAROAD TERMINAL SYSTEM (V.2)  DATE: 08/10/78      TIME: 12:58:27

NADB-STE-INX DISAULED--CONTINUING
NADU-AL-SFBK DISAULED--CONTINUING
NADB-AL-SFPI DISABLED--CONTINUING
NADB-AL-SFSI DISABLED--CONTINUING
NADB-PARMFL  DISABLED--CONTINUING
ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION?
YS

AIR POLLUTION YEARLY DATA SUMMARY REQUESTS

COMMANU LIST---YES OK NO?

YES

THE VALID REPORT TYPES ARE:

'KR'               KEYS QUALIFYING REPORT
'YR'               YEARLY SUMMARIES REPORT

THE VALID SITE-POLLUTANT COMMANDS ARE:

'STATE=??'         THE STATE DESIRED
'AREA=????'        THE CODE NUMBER FOR THE CITY OR COUNTY
'SITE=???'         THE SITE NUMBER WITHIN THE AREA
'AGENCY=?'         THE CODE FOR THE SPONSORING AGENCY
'PROJECT=??'       THE CODE FOR THE TYPE OF SAMPLING
'POLLUTANT=?????'  THE CODE FOR THE UESIRED POLLUTANT
'METHOD=??'        THE CODE FOR THE SAMPLING METHOD
'INTERVAL=?'       THE CODE FOR THE SAMPLING INTERVAL
'HYEAR=??'         BEGINNING YEAR DESIRED
'BQUARTER=??'      NOT USED, ENTER **,
'BDAY=??'          NOT USED, ENTER **,
'EYEAR=??'         ENDING YEAR DESIRED
'EQUARTER=??'      NOT USED, ENTER **,
'EDAY=??'          NOT USED, ENTER **,
'KEY=???...'       THE COMPLETE OR PARTIAL KEY IN THE ORDER GIVEN ABOVE

THE VALID SUMMARY INFORMATION COMMANDS ARE:

'ALL'              ALL STATISTICS ARE REQUIRED
'OBSERV'           THE NUMBER OF OBSERVATIONS
'MIN'              THE MINIMUM VALUE ENCOUNTERED
'MAX'              THE MAXIMUM VALUE ENCOUNTERED
'MTIME'            TIME MAXIMUM OCCURRED (MM:DA:HR)
'SMAX'             SECOND MAXIMUM VALUE
'TS'               TIME SECOND MAXIMUM OCCURRED (MM:DA:HR)
'%OBSERV'          THE PERCENT OF POSSIBLE OBSERVATIONS THAT ARE PRESENT
'ZSUB'             ONE HALF THE MINIMUM DETECTABLE
'ZCNT'             THE NUMBER OF TIMES VALUES OCCURRED THAT WERE LESS
                   THAN THE MINIMUM DETECTABLE

FOR INTERVALS OTHER THAN 3, 8 AND 24 HOUR RUNNING AVERAGES--
```

```
'AMEAN'              THE ARITHMETIC MEAN
'GMEAN'              THE GEOMETRIC MEAN
'ASTDEV'             THE ARITHMETIC STANDARD DEVIATION
'GSTDEV'             THE GEOMETRIC STANDARD DEVIATION
'PVIOL'              NUMBER OF PRIMARY VIOLATIONS
                     (BLANK IF NO STANDARD)
'SVIOL'              NUMBER OF SECONDARY VIOLATIONS
                     (BLANK IF NO STANDARD)
FOR 3, 8 AND 24 HOUR RUNNING AVERAGES--

'NPRI'               NUMBER OF NON-OVERLAPPING PRIMARY VIOLATIONS
'NSEC'               NUMBER OF NON-OVERLAPPING SECONDARY VIOLATIONS
'OP'                 NUMBER OF OVERLAPPING VALUES THAT EXCEEDED
                     THE PRIMARY STANDARD
'OS'                 NUMBER OF OVERLAPPING VALUES THAT EXCEEDED
                     THE SECONDARY STANDARD

VALID SUMMARIZATION CRITERIA COMMANDS ARE:

'CR'                 SELECT ONLY CRITERIA DATA
'NC'                 SELECT ONLY NON-CRITERIA DATA
'BB'                 SELECT BOTH CRITERIA AND NON-CRITERIA DATA.
                     BLANK STATISTICS FOR NON-CRITERIA DATA.
'BF'                 SELECT BOTH CRITERIA AND NON-CRITERIA DATA.
                     FLAG NON-CRITERIA DATA.

THE VALID COMMANDS FOR PROGRAM DIRECTION ARE:

'FIND'          (YR) GETS THE FIRST SEQUENTIAL RECORD OF THE
                     YEARLY    SUMMARY INFORMATION CONTAINING
                     THE USER INPUT KEY.
                (KR) GETS ALL THE RECORD KEYS OF THE YEARLY
                     SUMMARY FILE CONTAINING THE USER INPUT KEY
'NEXT ??'       (YR) 1. GETS THE NEXT SEQUENTIAL RECORD OF THE YEARLY
                     SUMMARY INFORMATION OF THE SUBSET CONTAINING THE USER
                     INPUT KEY. ?? IS THE NUMBER OF RECORDS WANTED.
                (YR) 2. IF NO MATCH ON 'FIND' COMMAND, A NEW KEY MUST
                     BE INPUT.
'?KEY'               ALLOWS USER TO LOOK AT CURRENT USER KEY
'XKEY'               FILLS USER KEY WITH ALL ASTERISKS
'HELP'               LISTS ALL COMMANDS.
'END'                SIGNALS END OF SESSION, PROGRAM ENDS.

START ENTERING COMMANDS

COMMAND?

KR

KR = KEYS QUALIFYING REPORT

COMMAND?

KEY=50**********42401917770000779999

COMPLETE KEY=50**********42401917770000779999

COMMAND?
```

```
F1

KEYS QUALIFYING REPORT
                     ST  AREA  SITE A  PR  POLL   ME  I BEG DATE END DATE
KEY ENTERED:         50  ****  ***  *  **  42401  91  7  7700**   7799**

                     ST  AREA  SITE A  PR  POLL   ME  I  DATE
KEYS MATCHING:       50  0040  001  F  01  42401  91  7  77/00
                     50  0280  007  F  02  42401  91  7  77/00
                     50  0480  002  F  02  42401  91  7  77/00
                     50  0500  004  F  02  42401  91  7  77/00
                    *50  0620  005  F  02  42401  91  7  77/00
                     50  0620  006  F  02  42401  91  7  77/00
                     50  0660  001  F  01  42401  91  7  77/00
                     50  0700  003  F  01  42401  91  7  77/00
                     50  0760  002  F  02  42401  91  7  77/00
                    *50  1040  001  F  01  42401  91  7  77/00
                    *50  1100  004  F  01  42401  91  7  77/00
                    *50  1100  005  F  01  42401  91  7  77/00
                    *50  1100  006  F  05  42401  91  7  77/00
                     50  1220  001  F  01  42401  91  7  77/00
                     50  1220  002  F  01  42401  91  7  77/00
                     50  1240  001  F  02  42401  91  7  77/00
                     50  1340  001  F  02  42401  91  7  77/00
                     50  1420  003  F  01  42401  91  7  77/00
                     50  1560  003  F  02  42401  91  7  77/00
                     50  1760  005  F  02  42401  91  7  77/00
                    *50  2000  003  F  02  42401  91  7  77/00
                     50  2040  003  F  01  42401  91  7  77/00
                     50  2060  001  F  01  42401  91  7  77/00
                    *50  2120  001  H  01  42401  91  7  77/00
                     50  2120  004  H  01  42401  91  7  77/00

NO. MATCHING KEYS:         25

* = DATA DOES NOT MEET SUMMARY CRIT.-OAQPS GUIDELINE 1.2-04

COMMAND?

YR

YR = YEARLY SUMMARIES REPORT

COMMAND?

ALL

ALL

COMMAND?

BF

BF
```

```
COMMAND?

KE=502120******42401917770000779999

COMPLETE KEY=502120******42401917770000779999

COMMAND?

F1



SITECODE=502120001H01    WHEELING               WEST VIRGINIA
POLCODE=4240191          UNITS=01    INT=7    YR=77
SULFUR    DIOXIDE        GAS BUBBLER  PARAROSANILINE-SULFAMIC ACID
# OBSERVATIONS=                                  43
MAXIMUM=                                        115
MINIMUM=                                          3
ARITH. MEAN=                                     29 *
GEOM. MEAN                                       22 *
ARITH. STD-DEV.=                             20.400 *
GEOM. STD-DEV.=                               2.266 *
PERCENT OBSERVATIONS=
SUBSTITUTE VALUE=                                 3
# SUBSTITUTIONS MADE=                             3
# PRIMARY VIOLATIONS=                             0
# SECONDARY VIOLATIONS=                           0
TIME MAXIMUM OCCURRED=                     03:08:00
TIME SECOND MAXIMUM OCCURRED=              02:14:00
SECOND MAXIMUM VALUE=                            62

* = VALUE FROM DATA NOT MEETING SUMMARY CRIT.-OAQPS GUILDLINE 1.2-040

COMMAND?

XALL

XALL

COMMAND?

MAX

MAX

COMMAND?

AMEAN

AMEAN

COMMAND?

PVIOL
```

```
PVIOL

COMMAND?

NE

NEXT HIGHER SEQUENTIAL RECORD AFTER USER INPUT KEY



SITECODE=502120004H01   WHEELING                  ,WEST VIRGINIA
POLL/ME=4240191         UNITS=01    INT=7      YR=77
SULFUR    DIOXIDE       GAS BUBBLER  PARAROSANILINE-SULFAMIC ACID
MAXIMUM=                                        58
ARITH. MEAN=                                    14
# PRIMARY VIOLATIONS=                            0

COMMAND?

AREA=0620

AREA=0620

COMMAND?

SITE=006

SITE=006

COMMAND?

?KE

V V   V  VV V    V VV V V V V V
500620006***42401917770000779999

COMMAND?

FI



SITECODE=500620006F02   HANCOCK CO                ,WEST VIRGINIA
POLL/ME=4240191         UNITS=01    INT=7      YR=77
SULFUR    DIOXIDE       GAS BUBBLER  PARAROSANILINE-SULFAMIC ACID
MAXIMUM=                                        315
ARITH. MEAN=                                     62
# PRIMARY VIOLATIONS=                            0

COMMAND?

XKE

V V   V  VV V    V VV V V V V V
********************************
```

```
COMMAND?
KR
KR = KEYS QUALIFYING REPORT
COMMAND?
KE=182380***G**42101***750000779999
COMPLETE KEY=182380***G**42101***750000779999
COMMAND?
FI


KEYS QUALIFYING REPORT

                  ST  AREA  SITE A  PR  POLL   ME  I BEG DATE END DATE
KEY ENTERED:      18  2380  ***  G  **  42101  **  *  7500**    7799**

                  ST  AREA  SITE A  PR  POLL   ME  I  DATE
KEYS MATCHING:    18  2380  011  G  01  42101  11  1  75/00
                  18  2380  011  G  01  42101  11  1  76/00
                 *18  2380  011  G  01  42101  11  1  77/00
                  18  2380  011  G  01  42101  11  Z  75/00
                  18  2380  011  G  01  42101  11  Z  76/00
                  18  2380  011  G  01  42101  11  Z  77/00
                  18  2380  019  G  01  42101  11  1  75/00
                 *18  2380  019  G  01  42101  11  1  76/00
                 *18  2380  019  G  01  42101  11  1  77/00
                  18  2380  019  G  01  42101  11  Z  75/00
                  18  2380  019  G  01  42101  11  Z  76/00
                  18  2380  019  G  01  42101  11  Z  77/00
                 *18  2380  020  G  01  42101  11  1  77/00
                  18  2380  020  G  01  42101  11  Z  77/00
                  18  2380  025  G  03  42101  11  1  75/00
                  18  2380  025  G  03  42101  11  1  76/00
                 *18  2380  025  G  03  42101  11  1  77/00
                  18  2380  025  G  03  42101  11  Z  75/00
                  18  2380  025  G  03  42101  11  Z  76/00
                  18  2380  025  G  03  42101  11  Z  77/00
                  18  2380  026  G  01  42101  11  1  75/00
                  18  2380  026  G  01  42101  11  1  76/00
                  18  2380  026  G  01  42101  11  1  77/00
                  18  2380  026  G  01  42101  11  Z  75/00
                  18  2380  026  G  01  42101  11  Z  76/00
                  18  2380  026  G  01  42101  11  Z  77/00
                  18  2380  029  G  01  42101  11  1  75/00
                  18  2380  029  G  01  42101  11  1  76/00
                 *18  2380  029  G  01  42101  11  1  77/00
                  18  2380  029  G  01  42101  11  Z  75/00
                  18  2380  029  G  01  42101  11  Z  76/00
                  18  2380  029  G  01  42101  11  Z  77/00
                 *18  2380  031  G  05  42101  11  1  75/00
                 *18  2380  031  G  05  42101  11  1  76/00
```

```
                  18  2380  031  G  05  42101  11  Z  75/00
                  18  2380  031  G  05  42101  11  Z  76/00
                 *18  2380  032  G  05  42101  11  1  75/00
                 *18  2380  032  G  05  42101  11  1  76/00
                  18  2380  032  G  05  42101  11  Z  75/00
                  18  2380  032  G  05  42101  11  Z  76/00
                 *18  2380  034  G  01  42101  11  1  77/00
                  18  2380  034  G  01  42101  11  Z  77/00

NO. MATCHING KEYS:     42

* = DATA DOES NOT MEET SUMMARY CRIT.-OAQPS GUIDELINE 1.2-04

COMMAND?

YR

YR = YEARLY SUMMARIES REPORT

COMMAND?

XAMEAN

XAMEAN

COMMAND?

XPVIOL

XPVIOL

COMMAND?

XMAX

XMAX

COMMAND?

KE=182380020G014210111*770000779999

COMPLETE KEY=182380020G014210111*770000779999

COMMAND?

FI


SITECODE=182380020G01   LOUISVILLE                ,KENTUCKY
POLL/ME=4210111          UNITS=05    INT=1    YR=77
CARBON    MONOXIDE       INSTRUMENTAL  NONDISPERSIVE INFRA-RED


* = VALUE FROM DATA NOT MEETING SUMMARY CRIT.-OAQPS GUILDLINE 1.2-040
```

```
COMMAND?
ALL
ALL
COMMAND?
NE

NEXT HIGHER SEQUENTIAL RECORD AFTER USER INPUT KEY


SITECODE=182380020G01   LOUISVILLE              ,KENTUCKY
POLL/ME=4210111          UNITS=05     INT=Z     YR=77
CARBON   MONOXIDE        INSTRUMENTAL  NONDISPERSIVE INFRA-RED
# OBSERVATIONS=                                 1647
MAXIMUM=                                         5.3
MINIMUM=                                          .3
SUBSTITUTE VALUE=                                 .3
# SUBSTITUTIONS MADE=                              0
# PRIMARY VIOLATIONS=                              0
# SECONDARY VIOLATIONS=                            0
# NON-OVLP PRI-VIOLATIONS =                        0
# NON-OVLP SEC-VIOLATIONS =                        0
TIME MAXIMUM OCCURRED=                      04:12:04
TIME SECOND MAXIMUM OCCURRED=               04:14:11
SECOND MAXIMUM VALUE=                            5.1
# OVLP VALS EXCEEDING PRIMARY=                     0
# OVLP VALS EXCEEDING SECONDARY=                   0

COMMAND?
XKE
V V   V  VV V    V VV V V V V V
********************************

COMMAND?
STATE=55

STATE=55

COMMAND?
POLLUTANT=11101

POLLUTANT=11101

COMMAND?
BYEAR=77

BYEAR=77
```

```
COMMAND?
KR
KR = KEYS QUALIFYING REPORT
COMMAND?
FI


KEYS QUALIFYING REPORT

                ST  AREA  SITE A  PR  POLL   ME  I BEG DATE END DATE
KEY ENTERED:    55  ****  ***  *  **  11101  **  *  77****   ******

                ST  AREA  SITE A  PR  POLL   ME  I  DATE
KEYS MATCHING:  55  0010  002  F  02  11101  91  7  77/00
                55  0010  004  F  01  11101  91  7  77/00
                55  0170  003  F  02  11101  91  7  77/00
                55  0170  008  F  02  11101  91  7  77/00

NO. MATCHING KEYS:      4

COMMAND?
YR
YR = YEARLY SUMMARIES REPORT
COMMAND?
KE=5501700008F021110191777000077999
COMPLETE KEY=550170008F0211101917770000779999
COMMAND?
FI


SITECODE=550170008F02   ST. CROIX             ,VIRGIN ISLANDS
POLL/ME=1110191         UNITS=01    INT=7    YR=77
SUSPENDED PART.         HI-VOL  GRAVIMETRIC
# OBSERVATIONS=                               71
MAXIMUM=                                     377
MINIMUM=                                       7
ARITH. MEAN=                                  64
GEOM. MEAN                                    52
ARITH. STD-DEV.=                          50.391
GEOM. STD-DEV.=                            1.983
PERCENT OBSERVATIONS=
SUBSTITUTE VALUE=                              1
# SUBSTITUTIONS MADE=                          0
# PRIMARY VIOLATIONS=                          1
# SECONDARY VIOLATIONS=                         2
TIME MAXIMUM OCCURRED=                   05:03:00
TIME SECOND MAXIMUM OCCURRED=            04:30:00
SECOND MAXIMUM VALUE=                         183

COMMAND?
END

YEARLY SUMMARY REQUESTS COMPLETED.
ENTER NEXT FUNCTION YOU WISH TO ACCESS
FUNCTION?
END

END SESSION
```

SAROAD REMOTE BATCH CONSTRUCTION (S,RB,SB)

Description

The remote batch construction function is a SAROAD remote batch function which allows the user to interactively construct SAROAD remote batch jobs. The jobs which may be initiated include:

- o YEARLY FREQUENCY DISTRIBUTION REPORT (NA211)
- o QUARTERLY FREQUENCY DISTRIBUTION REPORT (NA213)
- o RAW DATA <24 HOUR LISTING CURRENT DATA ONLY (NA219/D)
- o YEARLY INVENTORY (NA202)
- o YEARLY REPORT BY QUARTER (NA212)
- o QUARTERLY FREQUENCY DISTRIBUTION FROM CHANGES (NA214)

Commands

When the function is first entered, the user may ask for a listing of the available functional commands if one is needed. After this the user will enter the commands desired for report desired, sort sequence, and selection criteria. These commands will be entered after the prompt, COMMAND?

```
VALID COMMANDS ARE:
REPORT=??,??,??,........??  - REPORTS WANTED.  ?? REPRESENTS THE REPORT
        ID.  ID'S & CORRESPONDING REPORTS ARE:

        QF - QUARTERLY FREQUENCY
        YF - YEARLY FREQUENCY
        RL - RAW DATA <24-HOURS
        IN - YEARLY INVENTORY OF DATA
```

YQ - YEAR BY QUARTER
QC - QUARTERLY FREQUENCY DISTRIBUTION FROM CHANGES

SELECT SIGNALS THAT SELECT DATA WILL BE ENTERED

SELECT DATA IS ENTERED IN THE FOLLOWING ORDER:

STATE (2 POSITIONS) - CODE FOR THE STATE DESIRED
AREA (4 POSITIONS) - CODE FOR THE AREA DESIRED
SITE (3 POSITIONS) - SITE NUMBER WITHIN THE AREA
AGENCY (1 POSITION) - CODE FOR SPONSORING AGENCY
PROJECT (2 POSITIONS) - CODE FOR TYPE OF SAMPLING
POLLUTANT (5 POSITIONS) - CODE FOR DESIRED POLLUTANT
METHOD (2 POSITIONS) - CODE FOR SAMPLING METHOD
INTERVAL (1 POSITION) - CODE FOR SAMPLING INTERVAL
BEGIN-DATE (6 POSITIONS) - YYMMDD FOR THE DATE YYQQ (LEFT JUSTIFIED) FOR THE QUARTER
END-DATE (6 POSITIONS) - SAME FORMAT AS BEGIN-DATE
AQCR (3 POSITIONS) - CODE FOR AQCR DESIRED
COUNTY (4 POSITIONS) - CODE FOR COUNTY DESIRED
AQMA (4 POSITIONS) - CODE FOR AQMA DESIRED

SORT=???,???,???,....? - SORT SEQUENCE DESIRED, THE FIRST TWO POSITIONS OF ??? REPRESENT THE SORT CODE AND THE LAST POSITION REPRESENTS THE SEQUENCE CODE. VALID SORT AND SEQUENCE CODES ARE SHOWN BELOW:

VALID SORT CODES | VALID SEQUENCE CODES

CODE	MEANING	CODE	MEANING	CODE	MEANING
01	STATE CODE	09	UNITS	BLANK	ASCENDING (DEFAULT)
02	AREA CODE	10	INTERVAL CODE	A	ASCENDING
03	SITE CODE	11	YEAR	+	ASCENDING
04	AGENCY CODE	12	MONTH/QUARTER		
05	PROJECT CODE	13	DAY	D	DESCENDING
06	AQCR CODE	14	HOUR	-	DESCENDING
07	POLLUTANT CODE	15	POLLUTANT VALUE		
08	METHOD CODE	16	COUNTY CODE		

HELP	PROVIDES USER A LIST OF VALID COMMANDS.
END	SIGNALS END OF SORT AND SELECT DATA INPUT.

The following paragraphs discuss each of the commands available to the user. Commands may be entered in any sequence and reentered as often as desired prior to the END command.

REPORT = command: The user may specify reports desired by inputting two character code shown above, e.g., QF for quarterly frequency report. Multiple reports which will use the same sort and select data may be entered using this command by entering REPORT=CODE FOR REPORT 1, CODE FOR REPORT 2,ETC. At least one valid report must be specified by the user. Duplicate reports using the same sort and select data will not be accepted. The REPORT command may be entered as many times as desired however only the last valid entry before the END command will be considered. Report commands will be validated and an error message printed if errors are identified.

The sort sequence command is entered by entering the command SORT= followed by a position sort code and a sequence code, comma, another 2 position sort code and a sequence code, comma,...etc. Valid sort codes are two digit numeric values from 01 thru 16, valid sequence codes are "A", "+", or blank for ascending, and "D" or "-" for descending. The SAROAD sort card will be validated and the card image printed back. In addition, the interpreted sort sequence will be displayed. If there are any errors in the sort input, the sort will not be entered, errors will be identified and the following message displayed - "PREVIOUS SORT IGNORED". The SORT= command may be entered at any time in response to the COMMAND prompt. Only the last valid sort entered will be used. The SORT command is not mandatory. If the SORT command is not entered, the following sequence will be defaulted to: State-Area-Site-Agency-project, Pollutant-Method, Interval-Year-Month-Quarter.

The SELECT command will signify that the user is going to enter select card data. All data entered after the SELECT command until TERM is entered will be selected data. The first select card will be entered following the instruction "ENTER 43 CHARACTER SELECT CARD DATA, X, OR TERM and the prompt

```
          PP
          RR
SSAAAASSSAJJPPPPPMMIBBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
```

When a select card is entered, a validity check will be performed. The select card will be printed back in the following manner:

```
     SELECT CARD IS:  XXXXXXXXXXXXXXXX...XXX
```

The select card will be validated, and if an error is detected the message *** IN ERROR *** will be added at the end of the select card printed back. The fields in error will be identified by arrows under the field in error. An example of a select card in error is shown below:

```
SELECT CARD IS:  XXXXXXXXXXXXXXX ***IN ERROR***
                           +++
```

If the select card field is filled with asterisks (no blanks are allowed), all data for that particular item is extracted. Otherwise only the data for the indicated item will be retrieved. For example, if the state field is filled with asterisks all states will be reported. If '07' is entered, only Connecticut will be reported. If the 'POLLUTANT' field is filled with asterisks, all pollutants will be reported. If '12142' is entered, only Mercury pollutant will be reported.

The following rules must be followed in inputting select card information:

1) At least one valid select card must be entered.
2) A maximum of 99 valid select cards may be entered for a given run.
3) All select card fields must be filled. Those fields that are not to be selected on except date fields should be filled with the appropriate number of asterisks; for example, area: ****.
4) For date fields if the user wants all years he would enter 000000 in begin-date and 999999 in end-date. One year would be selected by entering year followed by 0000 in begin-year and year followed by 9999 in end-year.

The user will be returned to the SSAAA1........,X, or TERM? prompt until TERM is entered. If X is entered the previous select card will be ignored.

TERM will signify that all desired select cards have been entered and the user is returned to the 'COMMAND' prompt. Note: The select command may be reentered after TERM if the user decides to change the select cards, however, all cards must be reentered.

The HELP command may be entered in response to any COMMAND? prompt. The HELP command provides the user a list of valid commands.

When the user has entered all sort, select and report information that he desires the END command should be entered.

When the END command is entered the sort and select data will be printed back for the user to verify in the following manner:

```
SAROAD SORT CARD=(XXX,XXX,XXX.....)
     SORT SEQUENCE IS
          ASCENDING STATE CODE
          ASCENDING PROJECT CODE
          DESCENDING POLLUTANT CODE

SELECT CARDS ENTERED:

ST AREA SITE A PR POLL ME I BEGDTE ENDDTE AQCR CNTY AQMA
XX XXXX XXXX X XX XXXX XX X XXXXXX XXXXXX XXXX XXXX XXXX
XX XXXX XXXX X XX XXXX XX X XXXXXX XXXXXX XXXX XXXX XXXX
```

Structured Entries

When all desired commands have been entered (signified by user entry of the END command) and the sort and select data has been printed back. The user will be asked, "SORT AND SELECT DATA CORRECT? (YES OR NO). If NO is entered the user will be returned to the ATS master program. If YES is entered remote batch construction will proceed.

Next the report code for the given report will be requested. A list of the valid report codes may be obtained by the user before entering by responding YES to the question DO YOU NEED A LIST OF REPORT-CONTROL-CODES (YES OR NO?) The report code will be checked for validity and printed back for the user to verify. The user may change the report code by responding NO to the prompt. REPORT CODE CORRECT? (YES OR NO). In order to interactively construct remote batch runs, certain RUN card information is required. This required information includes priority, options, run identifier, account number, project code, and run time. The account number and project code will be automatically retrieved from the RUN card with which the user originally signed onto the terminal. Account number and project code therefore cannot be altered except by signing on anew. Similarly the RESTART option (R) will be automatically assigned. The remainder of the required RUN card information (run identifier, run time, and priority) as well as certain SYM card information (terminal id and number of copies requested) which may vary for each report requested will be requested for each report chosen.

The run identifier is a maximum of six characters long. The first two characters are the NCC assigned bin number and last four are any characters the user wishes to assign to uniquely identify his run. It is possible to have runs with the same identifier but it is not recommended since tracing runs becomes much more difficult. If the run identifier is not entered, the run identifier from the run card the user signed on the terminal with will be used.

The run id will be entered following the instruction "ENTER YOUR RUN ID (MAX. 6 CHAR.)" and the prompt, "RUNID?".

The run time is a maximum of three digits long, and must be entered (there is no "default" time). The user must estimate the SUP time in minutes which will be required to complete his request. The run time will be entered following the instruction "ENTER YOU RUN TIME (MINUTES) MAX. 3 CHAR." and the prompt "RUN TIME?". If the run time is invalid, the message ***INVALID RUN TIME*** REENTER will be displayed and the user must reenter the run time.

NCC has set up a system of priority codes which classify runs and enable the system to operate more efficiently. These codes change from time to time and therefore are not listed here. A valid priority of one alphabetic character must be entered by the user. The priority will be entered following the instruction "ENTER RUN PRIORITY CODE" and the prompt "PRIORITY?". If a valid priority code is not entered the message "*** INVALID PRIORITY *** REENTER." will be displayed and the user must reenter.

The user must specify the terminal identifier - a location to which all of the remote batch output will be routed. This location can be a low-speed, medium-speed or high-speed terminal. Terminal id is a maximum of six characters long. If no terminal id is entered or the user enters PR, the output is routed to the central UNIVAC 1110 site. Terminal id will be entered after the message "ENTER IDENTIFICATION NUMBER FOR THE TERMINAL TO WHICH THE PRINT SHOULD BE ROUTED." and the prompt "TERMINAL ID?".

The user may specify the number of copies of the output he desires for each run. A maximum of sixty-three copies may be requested. If no number is entered one copy only will be produced. The number of copies will be entered after the message "ENTER NUMBER OF COPIES OF OUTPUT DESIRED" and the prompt "COPIES?". If number of copies is not within the acceptable range the message "***INVALID NO. COPIES***REENTER" will be displayed and the user must reenter another number.

As each of the five entries is made, the subprogram will display them to the user. Upon completion of all entries, the subprogram will print a summary of run card and sym card information and the user can elect to accept or change this information. If accepted, the user will then be asked to submit or cancel the remote batch run. If submitted, a message is returned by the 1110 system indicating the run identifier and whether or not the run was accepted. If the run is accepted, it goes into the 1110 backlog and is scheduled for processing just as any other batch job.

After the first selected batch run has been initiated, the report code and runcard/symcard information will be requested for the second report selected and so on. After all the reports selected have been initiated the user will be asked "DO YOU WANT TO SUBMIT ANY MORE SAROAD BATCH JOBS. (YES OR NO).

If YES is entered the user will be returned to the beginning of the SB function. If NO is entered control will be returned to the ATS master program.

Special Notes

The commands can be entered in their entirety or be abbreviated to the first two characters of the command. For example, REPORT = QF or RE = QF will be accepted.

At least one report must be selected and at least one valid selection card must be entered.

A maximum of 99 select cards may be entered for a given initiation.

This function must be used with care. There is a potential for producing large volumes of output.

The output of the batch job requires a 132 print position line. If the user's printer is limited to 120 characters, the output should be routed to the UNIVAC 1110 central site for later mailing to the user.

"Example Interactive Session"

```
CNA206
SAROAD TERMINAL SYSTEM (V.2)  DATE: 08/10/78         TIME: 11:09:24

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION?
SB

SAROAD REMOTE BATCH FUNCTION

COMMAND LIST---YES OR NO?

YES

VALID COMMANDS ARE:
REPORT=??,??,??,....?? -REPORTS WANTED. ?? REPRESENTS THE REPORT ID.
                        ID'S AND CORRESPONDING REPORTS ARE:

                          QF -QUARTERLY FREQUENCY
                          YF -YEARLY FREQUENCY
                          RL -RAW DATA < 24-HOURS
                          IN -YEARLY INVENTORY OF DATA
                          YQ -YEAR BY QUARTER REPORT
                          QC -QUARTERLY FREQ DISTRIBUTION FROM CHANGES

SELECT                  SIGNALS THAT SELECT DATA WILL BE ENTERED

                       SELECT DATA IS ENTERED IN THE FOLLOWING ORDER:

                         STATE(2 POSITIONS)- CODE FOR THE STATE DESIRED
                         AREA(4 POSITIONS)- CODE FOR THE AREA DESIRED
                         SITE(3 POSITIONS)- SITE NUMBER WITHIN THE AREA
                         AGENCY(1 POSITION)- CODE FOR SPONSORING AGENCY
                         PROJECT(2 POSITIONS)- CODE FOR TYPE OF SAMPLING
                         POLLUTANT(5 POSITIONS)- CODE FOR DESIRED POLLUT
                         METHOD(2 POSITIONS)- CODE FOR SAMPLING METHOD
                         INTERVAL(1 POSITION)- CODE FOR SAMPLING INTVL
                         BEGIN-DATE(6 POSITIONS)- YYMMDD FOR THE DATE
                                                  YYQQ(LEFT JUSTIFIED)
                                                  FOR THE QUARTER
                         END-DATE(6 POSITIONS)- SAME FORMAT AS BEGIN-DTE
                         AQCR(3 POSITIONS)- CODE FOR AQCR DESIRED
                         COUNTY(4 POSITIONS)- CODE FOR COUNTY DESIRED
                         AQMA(4 POSITIONS)- CODE FOR AQMA DESIRED

SORT=???,???,......???, -SORT SEQUENCE DESIRED.  THE FIRST 2 POSITIONS
                        REPRESENT THE SORT CODE AND THE LAST POSITION
                        REPRESENTS THE SEQUENCE CODE.  VALID SORT AND
                        SEQUENCE CODES ARE SHOWN BELOW:

VALID SORT CODES                                  VALID SEQUENCE CODES

CODE  MEANING              CODE  MEANING          CODE   MEANING

 01   STATE CODE            09   UNITS CODE       BLANK  ASCENDING (DEF)
 02   AREA CODE             10   INTERVAL CODE      A    ASCENDING
```

```
03   SITE CODE          11   YEAR                    +    ASCENDING
04   AGENCY CODE        12   MONTH/QUARTER
05   PROJECT CODE       13   DAY                     D DESCENDING
06   AQCR CODE          14   HOUR                    -    DESCENDING
07   POLLUTANT CODE     15   POLLUTANT VALUE
08   METHOD CODE        16   COUNTY CODE

HELP                   PROVIDES USER A LIST OF VALID COMMANDS.

END                    SIGNALS END OF SORT AND SELECT DATA INPUT.

START ENTERING COMMANDS

COMMAND?
REPORT=QF,RL

REPORT IS: QF,RL

COMMAND?
SORT=01A,02A,03A,04A,05A,07A

SAROAD SORT CARD=(01A02A03A04A05A07A                          )
SORT SEQUENCE IS:
   ASCENDING STATE CODE
   ASCENDING AREA CODE
   ASCENDING SITE CODE
   ASCENDING AGENCY CODE
   ASCENDING PROJECT CODE
   ASCENDING POLLUTANT CODE

COMMAND?
SELECT

ENTER 43 CHARACTER SELECT CARD DATA,X,OR TERM

          PP
          RR
 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
0103800056021110191775000075999***********

SELECT CARD IS: 0103800056021110191775000075999***********

 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
060580002F0142101***7500007599999***********

SELECT CARD IS: 060580002F0142101***7500007599999***********

 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
364340004H014420111750000759999***********

SELECT CARD IS: 364340004H014420111750000759999***********   IN ERROR
                                         ******     ****

 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
364340004H014420111750000759999***********

SELECT CARD IS: 364340004H014420111750000759999***********

 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
```

```
361220019A054260214175020075040O**' '**'****
SELECT CARD IS: 361220019A054260214175020075040O****'***''*

 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
X

PREVIOUS SELECT CARD IGNORED
 SSAAAASSSAJJPPPPPMMIBBBBBEEEEEEAAACCCCAAAA,X,OR TERM?
TERM

COMMAND?
END

SORT AND SELECT DATA SPECIFIED IS:

SAROAD SORT CARD=(01A02A03A04A05A07A                    )
SORT SEQUENCE IS:
   ASCENDING STATE CODE
   ASCENDING AREA CODE
   ASCENDING SITE CODE
   ASCENDING AGENCY CODE
   ASCENDING PROJECT CODE
   ASCENDING POLLUTANT CODE

SELECT CARDS ENTERED:

ST AREA SITE A PR POLL  ME I BEGDTE ENDDTE AQCR CNTY AQMA
01 0380 005  G 02 11101 91 7 750000 759999 ***  **** ****
06 0580 002  F 01 42101 ** * 750000 759999 ***  **** ****
36 4340 004  H 01 44201 11 1 750000 759999 ***  **** ****

SORT AND SELECT CARDS CORRECT? YES OR NO?
YES

QUARTERLY FREQUENCY REPORT

REPORT-CODE-LIST---YES OR NO?
YES

VALID REPORT CODES AND THEIR MEANING ARE AS FOLLOWS:
REPORT CODE          MEANING
     1 (OR BLANK)    NO SELECTION ON SAROAD SUMMARIZATION CRITERIA
     2               SELECT ONLY DATA WHICH MEETS SUMMARIZATION CRITERIA
     3               SELECT ONLY DATA WHICH FAILS SUMMARIZATION CRITERIA

ENTER REPORT CODE
REPORT CODE?
1

REPORT CODE = 1
CORRECT (YES OR NO?)
YES

ENTER YOUR RUNID (MAX, 6 CHAR.)
RUNID?
```

```
03JG51

RUNID = 03JG51

ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR.
RUN TIME?

15

RUN TIME = 15

ENTER YOUR RUN PRIORITY CODE (1 CHAR.)
PRIORITY?

R

PRIORITY = R

ENTER IDENTIFICATION NUMBER FOR THE TERMINAL
TO WHICH THE PRINT SHOULD BE ROUTED.
TERMINAL ID?

PR

TERMINAL ID = PR

ENTER NUMBER OF COPIES OF OUTPUT DESIRED (1-63)
COPIES?

1

NO. COPIES = 01

RUN CARD & PRINT INFORMATION AS SPECIFIED IS:

RUN CARD=
PRIORITY:R RUNID:03JG51 ACCT:[redacted]     PROJ:[redacted]          RUNTIME:15

TERMINAL ID = PR
NO. COPIES  = 01

DO YOU WANT TO CHANGE THE RUN CARD/PRINT INFO?
( YES OR NO )

NO

DO YOU WANT TO SUBMIT THE RUN AS SPECIFIED?
( YES OR NO )

YES

RAW DATA < 24-HOUR REPORT

REPORT-CODE-LIST---YES OR NO?
YES

VALID REPORT CODES AND THEIR MEANING ARE AS FOLLOWS:
REPORT CODE          MEANING
     BLANK           PRODUCE AN HOURLY LISTING.
```

```
2-8            PRODUCE A LISTING  OF RUNNING AVERAGES FOR THE
                SPECIFIED INTERVAL OF 2-8 HOURS

ENTER REPORT CODE
REPORT CODE?
[ ]
REPORT CODE = BLANK
CORRECT (YES OR NO?)
YES

ENTER YOUR RUNID (MAX. 6 CHAR.)
RUNID?
03JG52
RUNID = 03JG52

ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR.
RUN TIME?

15
RUN TIME = 15

ENTER YOUR RUN PRIORITY CODE (1 CHAR.)
PRIORITY?

R
PRIORITY = R

ENTER IDENTIFICATION NUMBER FOR THE TERMINAL
TO WHICH THE PRINT SHOULD BE ROUTED.
TERMINAL ID?
PR
TERMINAL ID = PR

ENTER NUMBER OF COPIES OF OUTPUT DESIRED (1-63)
COPIES?

1
NO. COPIES = 01

RUN CARD & PRINT INFORMATION AS SPECIFIED IS:

RUN CARD=
PRIORITY:R RUNID:03JG52 ACCT:[redacted]    PROJ:[redacted]        RUNTIME:15

TERMINAL ID = PR
NO. COPIES  = 01

DO YOU WANT TO CHANGE THE RUN CARD/PRINT INFO?
( YES OR NO )
```

```
NO

DO YOU WANT TO SUBMIT THE RUN AS SPECIFIED?
( YES OR NO )

YES

DO YOU WANT TO SUBMIT ANY MORE BATCH RUNS?
NO

ENTER NEXT FUNCTION YOU WISH TO ACCESS
FUNCTION?
END

END SESSION
```

4.2.3 NEDS Terminal System (NTS)

INTRODUCTION

The NEDS Terminal System (NTS) provides both remote batch and interactive access to data in NEDS point and area source user files. The general operating procedures for NTS are basically the same as for the SAROAD Terminal System (STS) described in the previous subject. Descriptions of the master program and all available functions follow, and sample interactive sessions and sample outputs are included. Questions regarding this system, other than how to use a specific type of terminal are to be referred to:

National Air Data Branch (MD-14)
U.S. Environmental Protection Agency
Research Triangle Park, N.C. 27711
Phone: (919) 541-5247 (FTS 629-5247)

Questions on accounting information, use of a terminal, or the status of the UNIVAC 1110 are to be referred to:

National Computer Center (MD-34)
U.S. Environmental Protection Agency
Research Triangle Park, N.C. 27711
Phone (919) 541-3649 (FTS 629-3649)

REQUIRED ACCOUNTING INFORMATION

In order to use the NEDS terminal system, the user must be registered at the National Computer Center (NCC), Research Triangle Park, N.C. The accounting symbols assigned to the user plus other information necessary to submit batch jobs will be requested by the terminal system. The information required is:

i. account number.
ii. project code.
iii. terminal identification code. (This information is used for routing the printout generated by batch jobs. It can be either the user's site or the central computer site.)
iv. priority code. (This is one of a system of codes established by NCC.)
v. run identification code. (This code is composed of an NCC-assigned bin number and up to four additional characters specified by the user.)
vi. estimated run time (The user must furnish an estimate to be entered on the @RUN card. This estimate and the priority code are related. Sample estimates for the batch runs are given in the functional sections).

Almost all of the codes require interaction with the National Computer Center. If the user has questions relating to these items, please call User Services, FTS (919) 629-3649.

COMPUTER INSTRUCTIONS FOR ENTERING NTS

In order to use NTS, the user must know how to dial the computer, establish contact, and identify himself to the operating system. The procedure varies slightly from terminal to terminal so no attempt is made here to instruct the user on terminal usage. If there is a need for instruction in this area, please contact User Services, NCC as noted above.

When contact with the UNIVAC 1110 has been established and the user's terminal identification has been accepted, the operating system will print a message identifying the operating system. At this point the user must enter an @RUN card to begin his session. Please note that, because of the NTS design, the user must specify the CARD parameter on the RUN card if the remote batch portion of the NTS is to be used. No cards will actually be punched.

A sample RUN card is:

```
@RUN      RUN-ID, ACCT-NO,PROJ,TIME,PAGES/CARDS
```

where:

RUN-ID	is the users run identifier, which usually consists of a bin number and four user-assigned characters to identify the run.
ACCT-NO	is the users registered UNIVAC 1110 account number
PROJ	is the users registered UNIVAC 1110 project code.
TIME	is the estimated SUP time the terminal session will last (on 9/30/75 NCC had established 15 minutes as a maximum time limit).
PAGES	are the estimated number of pages for the terminal session

CARDS are the estimated number of cards to be punched by the system. This entry should be 999 if the remote batch portion of NTS is to be used.

Once the user's RUN card has been accepted, the date and time the user signed on is displayed on the terminal. The user is then requested to provide a password to identify himself as a valid system user. Only valid passwords registered with NCC will be accepted. After the system has accepted the password, and the user can start entering instructions. When the user is ready to use the NEDS Terminal System, the following sequence of instructions is entered.

```
@ASG,A     NADB*NADB-ABS/SDS.
@COPY,A    NADB*NADB-ABS.NE206
@FREE      NADB*NADB-ABS.
@NE206
```

The user will enter the master program and interaction with the system will begin. (All responses entered by the user within NTS must be in capital letters.) When the user is finished with the system, the END command is entered. Control is returned to the operating system and the user is free to access any UNIVAC 1110 functions desired, re-enter the @NE206, or sign off the UNIVAC system. To sign off, the user enters @FIN, waits for the accounting information to print, and then enters @@TERM.

Should the 1110 system go down or should the line drop during an NTS session, the user has to follow regular sign on procedures to reenter the system. If the user was building remote batch jobs at the time computer contact was broken, only the job being constructed at that time is lost. This is due to the dynamic submission of batch runs by the NTS at the time the user requests the run be submitted.

NTS MASTER PROGRAM

The NTS master program is designed as a processor. This means that all the files required for the system are dynamically assigned by the program. If there are any problems encountered in assigning a file, a message is printed but processing continues. If a file is unavailable, only those functions using that particular file are not operable. The messages and their meanings are listed below.

i. file name WAITING TO ROLL FILE IN

The file specified has been rolled out by the 1110 Operating System and the terminal system is waiting for the file to be restored to mass storage.

ii. file name DESTROYED

The file specified has been marked as having been destroyed by the 1110 Operating System. The system will continue but any function using the specified file will not be operational. Call NCC, User Services Section.

iii. file name DISABLED--CONTINUING

The file specified was in use when the 1110 system crashed. There is usually no problem with using the file.

iv. file name IN EXCLUSIVE USE

The file specified is in exclusive use by another run. This usually happens when NADB is updating the file. The system continues, but functions requiring the specified file will be inoperable. A later attempt may provide access to a function requiring this file.

v. file name FACILITY REJECTED

The file specified does not exist. It may have been removed by the 1110 Operating System or may have been deleted in preparation for an update that then failed. Call NADB, Data Processing Section.

The user is asked if a CRT terminal is being used. A CRT terminal is a cathode-ray-type terminal such as a UNISCOPE 100 or a HAZELTINE 2000. The interactive functions are designed to utilize either a 120-character print line or a 72-character print line. If you answer YES to the CRT question, a 72-character line is used. If answer is NO, a 120-character line is used.

Next, the user is asked whether instructions are needed for using the system. If YES is entered, a brief discussion of the system and the function list are provided. Each function entered then prints a brief description of itself thereafter. If NO is entered, it is assumed that the user is familiar with the system and less instructional information is displayed. If the user enters NO and then decides he needs a list of the functions, he can enter HELP after the FUNCTION? prompt.

When the FUNCTION? prompt is printed, the user is free to enter any valid NTS function. If an invalid entry is encountered, a message is printed and the FUNCTION? prompt is printed again. If the user has finished using NTS, he enters ENDS after the FUNCTION? prompt and control is returned to the UNIVAC 1110 operating system.

If an interactive function is specified, control is immediately passed to the appropriate subprogram. Interaction between the user and the data files via commands given to the subprogram continues until the END command is entered. The subprogram then returns control to the master program and a new function is requested.

If a remote batch function is requested, the master program first checks to see if this is the first remote function requested during the current terminal session.

If this is not the first batch function requested, control is passed to the appropriate subprogram. The subprogram interacts with the user to construct remote batch runs. When the final END command for the subprogram is encountered, a summary of the job constructed is printed for user review. The user has the option of submitting or cancelling the constructed run. If the run is submitted, the subprogram dynamically submits the run to the UNIVAC 1110 system. The job enters the job queue at this point and is eligible for execution. (As jobs are submitted to the UNIVAC operating system, a message is returned indicating the run identifier and whether the run was accepted or not). After the job is submitted or cancelled, control is returned to the master program.

The first remote batch function requested during a terminal session causes the master program to request some fixed accounting information. The information requested is then used for all batch runs constructed during the terminal session. The information requested is:

i. project code. At the prompt, PROJ?, the user should enter his valid UNIVAC project code.

ii. terminal identifier. The user can select a location where all of the remote batch output will be routed. This location can be a low-speed, medium-speed or high-speed terminal. To route the output to the central UNIVAC 1110 site the user enters PR. The location selected is entered after the TERMINAL ID? prompt.

iii. account number. Account numbers must be registered with NCC before run submissions will be accepted. The account number is entered after the ACCT #? prompt.

No validity or edit checks are made for the above three entries by NTS. At the point an actual batch run is submitted to the 1110 operating system, a check is made by that system against the valid account and project code combinations. If the combination entered is not valid, the run will not be accepted.

After the initial information is entered for the first access of a batch function, control is passed to the appropriate subprogram and the session proceeds as described above.

The following sections describe the actual functions available in the NEDS Terminal System. When the FUNCTION? prompt is displayed, the user is free to enter any valid NTS function. Valid responses are:

NB - NEDS Remote Batch Construction
NI - NEDS Interactive Function
ES - NEDS Emission Summary Report
HELP - Description of Functions
END - End of Terminal Session

Functions of NB, ES and NI are described in detail in the following sections. The HELP function may be used to get a display of valid functions. END is used at the completion of the terminal session to exit from NTS and return control to the UNIVAC 1110 operating system.

NEDS REMOTE BATCH CONSTRUCTION (NB)

Description

This function allows the user to interactively construct NEDS remote batch jobs. The jobs which may be initiated include:

- o MISSING DATA ITEMS REPORT (NE200)
- o CONDENSED POINT SOURCE LISTING (NE207)
- o FULL POINT SOURCE LISTING (NE215)
- o PLANT NAME LIST (NE252)
- o POTENTIAL EMISSIONS REPORT (NE255)
- o SCC SUMMARY REPORT (NE257)

First, a brief description of the NEDS remote batch function will be printed. Then the user will be asked if he needs a list of valid commands. The question will appear thus:

```
IF YOU NEED A LISTING OF THE VALID COMMANDS, ENTER YES.
OTHERWISE ENTER NO.
YES OR NO?
```

If the user has indicated in the master program that instructions are not required, the description of the procedure will be omitted and the command list query abbreviated as follows:

```
COMMAND LIST------YES OR NO?
```

If the user reply is YES, i.e. a command list is needed, the following list and description of commands will be displayed:

```
VALID COMMANDS ARE:
REPORT=??,??,...??      REPORTS WANTED.  ?? REPRESENTS THE REPORT CODE.
                        ONE TO SIX CODES, WITHOUT DUPLICATION & IN ANY
                        ORDER, MAY BE ENTERED.  VALID REPORT CODES ARE:
                         MD = MISSING DATA ITEMS REPORT
                         CP = CONDENSED POINT SOURCE LISTING
                         FP = FULL POINT SOURCE LISTING
                         PN = PLANT NAME LIST
                         PE = POTENTIAL EMISSIONS REPORT
                         SS = SCC SUMMARY REPORT

POLL=?                  -POLLUTANT CODE.  A NUMBER SPECIFYING ONE OF FIVE
                         POLLUTANTS TO BE SELECTED.  (NO VALUE SPECIFIED
                         MEANS "SELECT ALL") VALID POLLUTANT CODES ARE:
                          1 = PARTICULATE
                          2 = SULFUR DIOXIDE
                          3 = NITROGEN OXIDE
                          4 = HYDROCARBONS
                          5 = CARBON MONOXIDE
MIN=??????              -MINIMUM VALUE.  A SIX DIGIT NUMBER SPECIFYING A
                         MINIMUM VALUE TO BE SELECTED OF THE ABOVE
                         POLLUTANT.  (IF NO VALUE SPECIFIED, ZERO IS
                         ASSUMED) NUMBER MUST BE RIGHT JUSTIFIED.
```

SORT=??,??,...?? - SORT SEQUENCE. A MAXIMUM OF TWENTY SORT OPTIONS ARE AVAILABLE. ORDER OF ENTRY IS HIERARCHICAL BROAD TO SPECIFIC. DEFAULT SORT SEQUENCE IS STATE, COUNTY PLANT NUMBER, POINT NUMBER, SCC VALID SORT CODES ARE SHOWN BELOW:

01 = STATE
02 = COUNTY
03 = PLANT NUMBER
04 = POINT NUMBER
05 = SCC
06 = OWNERSHIP
07 = SIC
08 = ESTIMATION METHOD
09 = AQCR
10 = PLANT NAME
11 = POLLUTANT VALUE
12 = YEAR OF RECORD
13 = CONTROL EQUIPMENT
14 = CONTROL EFFICIENCY
15 = SULFUR CONTENT
16 = ASH CONTENT
17 = CITY
18 = UTM COORDINATES
19 = OPERATING RATE
20 = CONFIDENTIALITY

CONF=... - CONFIDENTIALITY CODE. IF INCORRECTLY ENTERED OR OMITTED, ONLY NON-CONFIDENTIAL DATA WILL BE REPORTED.

SIG=? - THE NUMBER OF SIGNIFICANT DIGITS TO BE USED FOR REPORTED DATA. (NO VALUE SPECIFIED = 3)

UNITS=? - THE DIGIT 1 IF METRIC UNITS ARE DESIRED FOR REPORTED DATA. (STANDARD IS ENGLISH)

SELECT - SIGNIFIES THAT CARD IMAGE DATA FOR THE STANDARD NEDS SELECT CARD(S) WILL NOW BE ENTERED. FIELDS NOT APPLYING MUST BE ASTERISK FILLED. SELECT CARD DATA MUST BE ENTERED IN THE FOLLOWING ORDER:

STATE CODE - 2 CHARACTERS.
COUNTY CODE - 4 CHARACTERS.
PLANT CODE - 4 CHARACTERS
POINT CODE - 2 CHARACTERS
SCC - 8 CHARS. SOURCE CLASSIFICATION CODE CONSISTS OF 4 SUBFIELDS ANY ONE OF WHICH MAY BE SPECIFIED OR ASTERISK-FILLED.
OWNERSHIP - 1 CHARACTER:
P = PRIVATE
L = LOCAL GOVERNMENT
S = STATE GOVERNMENT
F = FEDERAL GOVERNMENT
U = UTILITY
SIC - 4 CHARS. STANDARD INDUSTRIAL CLASSIFICATION CODE. (SEE "STANDARD INDUSTRIAL CLASSIFICATION MANUAL" OFFICE OF MANAGEMENT & BUDGET)
EST. METHOD - 1 CHARACTER. ESTIMATION METHOD:
0 = NOT APPLICABLE
1 = STACK TESTS OR OTHER EMISSIONS MEASUREMENT
2 = MATERIAL BALANCE
3 = CALCULATED USING EPA EMISSION FACTOR
4 = GUESS

5 = SPECIAL EMISSION FACTOR DIFFERENT FROM EPA FACTOR
6 = NEW FACILITY, NOT OPERATIONAL
7 = CLOSED FACILITY

AQCR - 3 CHARS. AIR QUALITY CONTROL REGION.

HELP	- WILL PRINT THIS LIST OF VALID COMMANDS.
END	- ENDS COMMAND ENTRIES. ALL DESIRED COMMAND DATA HAS BEEN ENTERED.

THE ENTIRE COMMAND CAN BE ENTERED OR THE COMMAND CAN BE ABBREVIATED TO THE FIRST TWO LETTERS OF THE COMMAND. FOR EXAMPLE, UNITS=1 & UN=1 BOTH INDICATE METRIC UNITS ARE DESIRED.

As soon as this list is printed (or immediately if no list is requested) the user will be asked to indicate whether he wishes to create an input file for the reports to be specified, or utilize one already in existence. The user will next be asked to identify the input file by entering up to six tape reel numbers.

If the user has indicated that he wishes to use a pre-existing input file, only the REPORT, HELP or END commands will be considered valid. After the END command is entered, the subprogram will begin requesting the variable information for each report specified.

If a new input file is to be created, the user will be directed to START ENTERING COMMANDS and will receive the COMMAND? prompt. Commands may be entered in any sequence and reentered as often as desired prior to the END command. If duplicate commands are given only the last such command will be recognized. The following paragraphs discuss each of the commands in detail.

"REPORT" COMMAND

Provided all reports will utilize the same input file, i.e. the same set of control and select cards, up to six report types can be requested via the REPORT command. The codes indicating these reports (see above list of valid commands) can be entered in any order but no duplicate codes in any one REPORT command are allowed. At least one report must be requested, and the REPORT command must be given at least once before the END command, or remote batch construction will terminate. The report code(s) will be validated and an error message printed if errors are detected.

CONTROL CARD COMMANDS

The commands "POLL", "MIN", "SORT", "CONF", "SIG", and "UNITS" are used to construct the standard NEDS control card. All of these commands are optional inasmuch as all have default values (see above list of valid commands). The control card commands will be validated and an error message printed if errors are detected.

"SELECT" COMMAND

The SELECT command signifies to the subprogram that the user is now ready to enter a set of one to ninety-nine select cards common to all reports requested (or to be requested). From the time the SELECT command is entered until the user enters the expression "TERM" (or "TE") all data entered is considered select card data. Upon the entry of the SELECT command, the user will receive the instruction "ENTER 29 CHARACTER SELECT CARD IMAGE, X, OR TERM" followed by the prompt:

```
              PP
SSCCCCPPPPTTSSSSSSSSOSSSSEAAA,X,OR TERM?
```

The user must then key in an exact card image using the prompt message itself as an alignment guide. Fields not applying must be asterisk-filled. Blanks are not allowed. If the user has indicated that he wishes to create a new input file for the specified reports, at least one select card must have been so constructed before the END command is given or remote batch construction will terminate.

When a select card is entered a validity check will be made by the subprogram. If no errors are detected, the entry will be displayed thus;

```
SELECT CARD IS:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

and the select card prompt will again be given. This cycle will repeat until (1) ninety-nine select cards have been entered or (2) the user enters "TERM". The entry of "X" will cancel the previous select card entry and upon the subsequent prompt the user may enter its replacement or terminate SELECT entries.

If an error is detected the message *** IN ERROR *** will be added at the end of the select card printed back. The fields in error will be identified by ↑↑↑ under the field in error. An example of a select card in error is shown below:

```
SELECT CARD IS:  XXXXXXXXXXXXXXX ***IN ERROR***
                 ↑↑
```

If the select card field is filled with asterisks (no blanks are allowed) all data for that particular item is extracted. Otherwise only the data for the indicated item will be retrieved. For example, if the state field is filled with asterisks all states will be reported. If '07' is entered only Connecticut will be reported. If 'POLL = 1 is entered only particulate will be reported.

The following rules must be followed in inputting select card information:

1) At least one valid select card must be entered.
2) A maximum of 99 valid select cards may be entered for a given run.
3) All select card fields must be filled. Those fields that are not to be selected on should be filled with the appropriate number of asterisks; for example, plant: ****.
4) At least one field must be selected on.

Select card data should be prepared with care, since some report types will generate very large amounts of print depending on the select criteria.

When the user enters "TERM" the subprogram will return to the COMMAND? prompt. The SELECT command may be reentered at any time thereafter until the END command is given, but this will effectively erase all previous select card entries. The entire set of desired select cards must be entered each time the SELECT command is given.

The HELP command may be entered in response to any COMMAND? prompt. This will cause the list of valid commands to be printed followed once again by the COMMAND? prompt.

Only when the user is certain he has entered all appropriate report codes and control and select data should the END command be given. The command data is then fixed until the runs are submitted. When the END command is given the subprogram will ascertain whether or not valid report codes and at least one valid select card has been entered. If these entries have not been made remote batch construction will terminate and control will be returned to the NTS master program. If this necessary command data has been entered, all command data as specified or implied by the user will be displayed for final verification as in the following example:

```
REPORTS SPECIFIED:
    PLANT NAME LIST
    FULL POINT SOURCE LISTING
    CONTROL CARD DATA:
    SORT SEQUENCE = 01 02 03 04 05
    SIGNIFICANT DIG = 5
    METRIC UNITS
```

```
SELECT CARDS ENTERED:
ST CNTY PLNT PT ....SCC....O SIC. E AQCR
04 6000 **** ** * ** *** ** * **** * ***
05 3520 **** ** * ** *** ** * **** * ***
** **** **** ** * ** *** ** P **** * 001
```

The user will then be asked, "COMMAND DATA CORRECT? (YES OR NO)".

If NO is entered remote batch construction will cease and control will be returned to the NTS master program. If YES is entered, the variable information for each report type specified will be requested.

VARIABLE ENTRIES

Some report programs require a program control card and other user entries in order to specify various options. Upon user request, a description of the control card options will be printed if the specified report is one of these. The user must then enter this control information as the subprogram may request. If the report program will create output files, unique tape reel numbers will also be requested.

In order to interactively construct remote batch runs, certain RUN card information is required. This required information includes priority, options, run identifier, account number, project code, and run time. The account number and project code will be automatically retrieved from the RUN card with which the user originally signed onto the terminal. Account number and project code therefore cannot be altered except by signing on anew. Similarly the RESTART option(R), core size, tapes and disks will be automatically assigned by the subprogram. The remainder of the required RUN card information (run identifier, run time, and priority) as well as certain SYM card information (terminal id and number of copies requested) which may vary for each run will be requested within the subprogram.

The run identifier is a maximum of six characters long. The first two characters are the NCC assigned bin number and the last four are any characters the user wishes to assign to uniquely identify his run. It is possible to have runs with the same identifiers but it is not recommended since tracing runs becomes much more difficult. If the run identifier is not entered, the run identifier from the run card the user signed on the terminal with will be used. The run id will be entered following the instruction "ENTER YOUR RUN ID (MAX. 6 CHAR.)" and the prompt, "RUNID?".

The run time is a maximum of three digits long, and must be entered (there is no "default" time). The user must estimate the SUP time in minutes which will be required to complete his request. The run time will be entered following the instruction "ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR." and prompt "RUN TIME?".

If the run time is invalid, the message "***INVALID RUN TIME***REENTER" will be displayed and the user must reenter the run time.

NCC has set up a system of priority codes which classify runs and enable the system to operate more efficiently. These codes change from time to time and therefore are not listed here.

A valid priority code of one alphabetic character must be entered by the user. The priority will be entered following the instruction "ENTER RUN PRIORITY CODE" and the prompt "PRIORITY?". If a valid priority code is not entered the message "*** INVALID PRIORITY. REENTER.***" will be displayed and the user must reenter priority.

The user must specify the terminal identifier - a location to which all of the remote batch output will be routed. This location can be a low-speed, medium-speed or high-speed terminal. Terminal id is a maximum of six characters long. If no terminal id is entered or the user enters PR the output is routed to the central UNIVAC 1110 site. Terminal id will be entered after the message "ENTER IDENTIFICATION NUMBER FOR THE TERMINAL TO WHICH THE PRINT SHOULD BE ROUTED" and prompt "TERMINAL ID?".

The user may specify the number of copies of the output he desires for each run. A maximum of sixty-three copies may be requested. If no number is entered one copy only will be produced. The number of copies will be entered after the message "ENTER NUMBER OF COPIES OF OUTPUT DESIRED" and the prompt "COPIES?".

If number of copies is not within the acceptable range the "****INVALID NO. COPIES*** REENTER" will be displayed and the user must reenter another number.

As each of these five entries is made, the subprogram will display them to the user. Upon completion of all entries, the subprogram will print a summary of run card and sym card information and the user will then be asked to submit or cancel the remote batch run.

As each of the five RUN card and SYM card entries are made, the subprogram will display them to the user. Upon completion of all variable entries, the subprogram will print a summary of RUN card and SYM card information and the user can elect to accept or change this information. If accepted, the user will then be asked to submit or cancel the remote batch run.

After each selected batch run has been submitted or cancelled, RUN card/SYM card and program control information (if any) will be requested for the next report selected until all specified reports have been submitted or disapproved (cancelled) by the user.

After all the reports specified have been submitted or cancelled the runs will be initiated and scheduled for processing in sequence. The user will be asked:

> DO YOU WANT TO CONSTRUCT ANY MORE NEDS REMOTE BATCH RUNS IN THIS FUNCTION? (YES OR NO). If YES is entered the subprogram will return to the beginning and entirely new runs may then be constructed as before. If NO is entered control will be returned to the master program and the "NB" or any other valid function can be accessed.

SPECIAL NOTES

The commands can be entered in their entirety or be abbreviated to the first two characters of the command. For example, REPORT = MD or RE = MD will be accepted.

At least one report must be selected and at least one valid selection card must be entered.

A maximum of 99 select cards may be entered for a given initiation.

This function must be used with care. There is a potential for producing a large volume of output.

The output of the batch job requires a 132 print position line. If the user's printer is limited to 120 characters, the output should be routed to the UNIVAC 1110 central site for later mailing to the user.

NEDS Emission Summary Report (ES)

Description

The emission summary function is a NEDS remote batch function which allows the user to retrieve a summary report by category on varying geographical areas. A sample of the report format is included in Section 2, Chapter 1, Subject 2.

Commands

After the preliminary responses have been entered, the user receives the prompt, COMMAND? The command word can be entered in its entirety or can be abbreviated to the first two characters of the word. The commands are:

COMMAND	DESCRIPTION
i. report=?	Report selection category wanted. Various options are open to the user to limit his retrieval to a manageable size. The option desired is chosen by specifying the selection class corresponding to it. The options are: 1. State summary report. As many states as are desired can be entered. 2. County summary report. As many state/county combinations as desired may be entered.

3. State by county summary report. As many states as desired can be entered.

4. EPA Region summary report. As many regions as desired may be requested.

5. AQCR summary report. As many AQCR's as are desired may be entered.

6. National summary report. No further input is required.

ii. end — Terminate command entries. This command, following the COMMAND? prompt, signals the end of control specifications for this function.

When the user selects a category for entering selections, he enters a loop which allows him to enter as many combinations as desired. For each category, when this loop is entered and after each entry (except END) a prompt is printed indicating the information required. These prompts differ from category to category but basically they are: combination, X or END. The combinations reflect the category. For example, category two is the state/county category. The messages, ENTER 6 CHARAC-STATE/COUNTY CODE, X OR END and SC,X, or END? are printed. SC represents state/county. The combination entered must be of the correct length or it is rejected. The entry, X, causes the previous combination entered to be ignored. This mechanism allows users to delete erroneous information entered. END signifies that all combinations desired have been entered.

When the END command is entered after the COMMAND? prompt, a summary of the command entries is printed. The user has the option of approving these specifications or cancelling the remote batch run. If approved, the user will then supply the structured entries for run card and print information.

Structured Entries

In order to interactively construct remote batch runs, certain RUN card information is required. This required information includes priority, options, run identifier, account number, project code, and run time. The account number and project code will be automatically retrieved from the RUN card with which the user originally signed onto the terminal. Account number and project code therefore cannot be altered except by signing on anew. Similarly the RESTART option (R) will be automatically assigned by the subprogram. The remainder of the required RUN card information (run identifier, run time, and priority) as well as certain SYM card information (terminal id and number of copies requested) which may vary for each run will be requested within the subprogram.

The run identifier is a maximum of six characters long. The first two characters are the NCC assigned bin number and the last four are any characters the user wishes to assign to uniquely identify his run. It is possible to have runs with the same identifiers but it is not recommended since tracing runs becomes much more difficult. If the run identifier is not entered, the run identifier from the run card the user signed on the terminal with will be used. The run id will be entered following the instruction "ENTER YOUR RUN ID (MAX. 6 CHAR.)" and the prompt, "RUNID?".

The run time is a maximum of three digits long, and must be entered (there is no "default" time). The user must estimate the SUP time in minutes which will be required to complete his request. The run time will be entered following the instruction "ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR." and prompt "RUN TIME?".

If the run time is invalid, the message "***INVALID RUN TIME*** REENTER" will be displayed and the user must reenter the run time.

NCC has set up a system of priority codes which classify runs and enable the system to operate more efficiently. These codes change from time to time and therefore are not listed here. A valid priority of one alphabetic character must be entered by the user. The priority will be entered following the instruction "ENTER RUN PRIORITY CODE" and the prompt "PRIORITY?" If a valid priority code is not entered the message '*** INVALID PRIORITY***REENTER' will be displayed and the user must reenter priority.

The user must specify the terminal identifier - a location to which all of the remote batch output will be routed. This location can be a low-speed or medium-speed terminal. Terminal id is a maximum of six characters long. If no terminal id is entered or the user enters PR the output is routed to the central UNIVAC 1110 site. Terminal id will be entered after the message "ENTER IDENTIFICATION NUMBER FOR THE TERMINAL TO WHICH THE PRINT SHOULD BE ROUTED" and prompt "TERMINAL ID?"

The user may specify the number of copies of the output he desires for each run. A maximum of sixty-three copies may be requested. If no number is entered one copy will be produced. The number of copies will be entered after the message "ENTER NUMBER OF COPIES OF OUTPUT DESIRED" and the prompt "COPIES?"

If number of copies is not within the acceptable range the message "***INVALID NO. COPIES***REENTER" will be displayed and the user must reenter another number.

As each of these five entries is made, the subprogram will display them to the user. Upon completion of all entries, the subprogram will print a summary of run card and sym card information and the user can elect to accept or change this information. If accepted, the user will then be asked to submit or cancel the remote batch run. If submitted a message is returned by the 1110 system indicating the run identifier and whether or not the run was accepted. If the run is accepted, it goes into the 1110 backlog and is scheduled for processing just as any other batch job. Control is passed back to the NTS master program and any NTS function can be requested at that time.

Special Notes

The commands can be entered in their entirety or be abbreviated to the first two characters of the command. For example, REPORT=1 and RE=1 are equally acceptable.

A report must be selected and at least one combination entered or no batch job will be submitted.

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The output of the batch job requires a 132 print position line. If the user's printer is limited to 120 characters, the output should be routed to the UNIVAC 1110 central site for later mailing to the user.

NEDS QUICK LOOK INTERACTIVE FUNCTION (NI)

The NEDS Quick Look function provides interactive access to NEDS point and area source files. The user has the ability, given flexible selection and sort criteria, to select records and choose either a formatted report giving a count of records selected, developing his own free formatted report with data items specified by the user, cataloging a file of selected records, or initiating a batch run of one of the standard NEDS report programs with the file of selected records as input. Any or all of these options may be used in any run.

COMPUTER INSTRUCTIONS FOR USING QUICK LOOK

To use the Quick Look function the user must first sign on to the operating system and enter the information necessary to use NTS, as described earlier. After the user has entered the NTS program, the Quick Look capability may be accessed by selecting the 'NI' function. Selection of the NI function transfers control to the NEDS Quick Look control subprogram. Upon entering this program, the user will be asked two questions. Based on user response to these questions, program control is established for internal program use.

The following presents these questions, possible answers and consequent program action.

1. Q - DO YOU NEED SYSTEM USE INFORMATION

   A - N (Do not display)

   A - Y Display the following

   NEDS Quick Look System provides the capability of extracting specified records from either the NEDS Point Source User File or the NEDS Area Source User File and creating a user specified report from these records in the NTS system. The entry PS is point source, the entry AS is area source.

2. Q - SELECT POINT SOURCE, AREA SOURCE PROCESSING OR RETURN TO NTS MASTER

   A - PS (Transfer to Point Source Selection Subprogram)

   A - AS (Transfer to Area Source Selection Subprogram)

   A - NTS (Transfer to NTS Master Program)

If the user selects PS or AS, he may then proceed with the selection of either point source or area source records. If NTS is selected, the Quick Look function is terminated and control is returned to the NTS master program.

POINT SOURCE DATA SELECTION

If the user chooses the PS option, control is transferred to the point source selection subprogram. The general purpose of this program is to accept selection criteria as specified by the user and using these selections, extract records from the Point Source User File for reporting.

Each selection may consist of one or more selection elements so long as the total number of elements for all selections does not exceed ninty-nine. If a specific selection is to be restricted by more than one file data field, then one element per data field will be required to specify the selection criteria. A description of the correct way to input a selection element entry is shown as follows:

A valid selection element entry consists of a field code, qualifier, field value, and connector (connector optional).

-----Field code is the number corresponding to the required Point Source field (01 thru 89).

-----Qualifier is used to show the relationship between the field value and the file data to be extracted (LT GT EQ ALL)

-----Field value (s) is the actual value(s) used in record selection---can be up to six values on explicit selection

-----Connector is used to connect two sets of qualifier and field value in order to create a value range and to string multiple explicit values. (AND OR)

EXAMPLES

```
01  EQ  15
01  EQ  15  OR   16  OR  17
01  GT  15  AND  LT  21
01  LT  5
01  GT  48
25  ALL
```

Sample selections containing one and more than one selection element are shown as follows:

SELECTION 1
01 EQ 1
02 EQ 542
SELECTION 2
01 EQ 2
02 EQ 396
SELECTION 3
01 GT 28

In order to obtain all the information needed by the system, a series of inquires are made of the user. Based on his responses, the selection criteria is stored for internal use and program control is routed to accommodate user specification.

The following list of questions, answers and system responses is given in chronological order of occurrances.

1. Q - DO YOU WISH TO SEE FIELD CODE DESCRIPTION TABLE?
   A - Y (Display tables as on following pages)
   A - N (Do not display table)
2. Q - ENTER SELECTION ELEMENT
   A - (Example) 1 EQ 01 or 05
   A - HELP (Display description of valid selection element entry)
   A - FIELD-CD (Display field code and field description table)

The previously entered selection element is edited for valid field code, qualifier, field value, and connector. Also not more than six field values can be entered for a single field code. If any of these edits is failed, the appropriate error message is displayed and the user is allowed to re-enter the selection element.

If the selection element as entered is valid, the number of elements is incremented and checked for a maximum of 99 possible entries. If more than 99 entries have been made, the user is alerted as to this condition and all elements of the final, incomplete selection(s) are blanked out. No additional selection elements may be entered at this point. Those selections that have been completely entered and accepted may be processed, however.

All selection entries must be limited to 72 characters in length. This is the normal length of print lines on CRT terminals. Users preparing input on 80 column punched cards or terminals with print lines longer than 72 characters are cautioned not to exceed using 72 characters for selection entries. Entries exceeding 72 characters in length will be truncated.

POINT SOURCE
FIELD CODE DESCRIPTION TABLE

01	STATE
02	COUNTY CODE
03	PLANT IDENTIFICATION NUMBER
04	POINT IDENTIFICATION NUMBER
05	SOURCE CLASSIFICATION NUMBER
06	AQCR NUMBER
07	YEAR PLANT INFO LAST UPDATED (CARD 1)
08	CITY CODE
09	UTM ZONE
10	ESTABLISHMENT NAME AND ADDRESS
11	PERSONAL CONTACT
12	OWNERSHIP CODE
13	YEAR POINT INFO LAST UPDATED (CARD 2)
14	STANDARD INDUSTRIAL CLASSIFICATION CODE
15	IPP PROCESS CODE
16	HORIZONTAL UTM COORDINATE (KM)
17	VERTICAL UTM COORDINATE (KME)
18	STACK HEIGHT (FT)
19	STACK DIAMETER (FT)
20	STACK TEMPERATURE (DEG F)
21	FLOW RATE (FT 3/MIN)
22	PLUME HEIGHT
23	FIRST POINT WITH COMMON STACK CODE
24	LAST POINT WITH COMMON STACK CODE
25	YEAR CONTROL INFO LAST UPDATED (CARD 3)
26	BOILER DESIGN CAPACITY (10 6 BTU/HR)

27 PRIMARY CONTROL EQUIPMENT PARTICULATES
28 SECONDARY CONTROL EQUIPMENT PARTICULATES
29 PRIMARY CONTROL EQUIPMENT SO2
30 SECONDARY CONTROL EQUIPMENT SO2
31 PRIMARY CONTROL EQUIPMENT NOX
32 SECONDARY CONTROL EQUIPMENT NOX
33 PRIMARY CONTROL EQUIPMENT HC
34 SECONDARY CONTROL EQUIPMENT HC
35 PRIMARY CONTROL EQUIPMENT CO
36 SECONDARY CONTROL EQUIPMENT CO
37 EST CONTROL EFFICIENCY PARTICULATE (%)
38 EST CONTROL EFFICIENCY SO2 (%)
39 EST CONTROL EFFICIENCY NOX (%)
40 EST CONTROL EFFICIENCY HC (%)
41 EST CONTROL EFFICIENCY CO (%)
42 YEAR PRODUCTION INFO LAST UPDATED (CARD4)
43 % ANNUAL THRU PUT (DEC-FEB)
44 % ANNUAL THRU PUT (MAR-MAY)
45 % ANNUAL THRU PUT (JUN-AUG)
46 % ANNUAL THRU PUT (SEP-NOV)
47 NORMAL OPERATING HOURS PER DAY
48 NORMAL OPERATING DAYS PER WEEK
49 NORMAL OPERATING WEEKS PER YEAR
50 EST EMISSIONS PARTICULATES (TONS/YEAR)

51 EST EMISSIONS SO2 (TONS/YEAR)
52 EST EMISSIONS NOX (TONS/YEAR)
53 EST EMISSIONS HC (TONS/YEAR)
54 EST EMISSIONS CO (TONS/YEAR)
55 ESTIMATION METHOD PARTICULATE
56 ESTIMATION METHOD SO2
57 ESTIMATION METHOD NOX
58 ESTIMATION METHOD HC
59 ESTIMATION METHOD CO
60 % SPACE HEAT
61 YEAR REGULATORY INFO LAST UPDATED (CARD 5)
62 ALLOWABLE EMISSIONS PARTICULATE (TONS/YR)
63 ALLOWABLE EMISSIONS SO (TONS/YR)
64 ALLOWABLE EMISSIONS NO (TONS/YR)
65 ALLOWABLE EMISSIONS HC (TONS/YR)
66 ALLOWABLE EMISSIONS CO (TONS/YR)
67 COMPLIANCE STATUS
68 COMPLIANCE SCHEDULE - YEAR
69 COMPLIANCE SCHEDULE - MONTH
70 COMPLIANCE STATUS UPDATE - YEAR
71 COMPLIANCE STATUS UPDATE - MONTH
72 COMPLIANCE STATUS UPDATE - DAY
73 EMERGENCY CONTROL ACT PROGRAM STATUS
74 CONTROL REGULATION NUMBER 1
75 CONTROL REGULATION NUMBER 2
76 CONTROL REGULATION NUMBER 3
77 YEAR EMISSIONS INFO LAST UPDATED (CARD6)
78 FUEL, PROCESS, SOLID WASTE OPERATING RATE

79 MAXIMUM DESIGN RATE
80 % SULFUR CONTENT
81 %ASH CONTENT
82 HEAT CONTENT (10 L BTU)
83 SOURCE CODE
84 CONFIDENTIALITY OF DATA
85 PARTICULATE EMISSIONS (TONS/YEAR)
86 SO2 EMISSIONS (TONS/YEAR)
87 NOX EMISSIONS (TONS/YEAR)
88 HC EMISSIONS (TONS/YEAR)
89 CO EMISSIONS (TONS/YEAR)

There are two special selection capabilities that have been provided for the source classification code - field code 05.

NUMBER 1

If the user specifies field code 05 (SCC) equals any one of the following combinations,

```
05 EQ 9 * * * * * * *     (1)
05 EQ 9 9 9 * * * * *     (2)
05 EQ 9 9 9 9 9 9 * *     (3)
05 EQ 9 9 9 9 9 9 9 9     (4)
```

the record selection against the NEDS Point Source User File will be based on the non-asterisk part of the selection. For example, the selection 05 EQ 301***** will select all records with SCCs beginning with 301. Selection 1******* will select all records with SCCs beginning with 1.

If this selection capability is used SCCs containing asterisks should be the final element in a selection entry. SCCs in format (4) above must precede those with format (3), and (3) before (2), (2) before (1), to assure proper record selection.

NUMBER 2

The above selection capability may or may not be used in combination with the second special selection capability provided for SCC selection.

If the user specifies field code 05 (SCC) equals a specific value, he may in addition, specify PL or PO as part of the selection value.

If PL is specified and a record match is found with the full or partial specified field value then all records for that plant are extracted.

If PO is specified and a record match is found with the full or partial specified field value then all records for that point are extracted.

It should be noted, that there is one restriction if the plant/point specification is used. If used the SCC PL/PO element should be the final element in a selection entry or the only element in a selection.

Example 1:

```
01 EQ 01
05 EQ 10100201PO
```

This selection will retrieve all SCC records with SCC 10100201 in State 01 plus all other SCC records at points that have SCC 10100201. This type of selection may be used to retrieve all record for boilers using multiple fuels, for example.

Example 2:

```
01 EQ 01
05 EQ 10100201 PL
```

This selection will retrieve all records at all facilities in State 01 that have SCC 10100201. This type of selection may be used to retrieve all emission points at all facilities that have a particular process, for example.

3; Q - MORE ELEMENTS IN CURRENT SELECTION?
A - Y
A - N
A - DISPLAY (All elements of current selection are displayed)

If the answer is yes, more elements are to be added to the selection element. The user may then enter additional selection elements.

If the answer is no, the elements within the current selection entry will be examined to determine if State code has been specified as part of the selection criteria. If not, a message is displayed to the user and he is given the opportunity to add one or more fields to his selection criteria.

If State code is not included as a selection element, the entire point source user file must be read to make the selection. This may require substantial time and eventual high cost of retrieval. Therefore, users should consider including State code as part of the selection criteria or consider submitting national selections as batch, rather than interactive runs to reduce cost of retrieval.

4. Q - ARE THERE MORE SELECTION ENTRIES?
   A - Y
   A - N
   A - DISPLAY (All selection entries are displayed)

If the answer is yes, again the table is checked for maximum number of entries as described previously. If the answer is no, the user has indicated that all selection criteria has been entered and record selection can begin.

At this point the Quick Look selection program will display the message "Processing File Selection". Depending on the number and complexity of selections requested, some waiting time may be required before control is returned to the user.

As the file is read, each element within the current selection is compared to the file data to determine if the record meets the selection criteria. If the record meets the selection criteria, the record is written to the Selected Point Source User File.

This procedure continues until all applicable file records are compared to the specified selection entries for possible selection.

A count is kept of the number of records selected and written to the Selected Point Source User File and which selection criteria entry(s) caused this record to be extracted from the Point Source User File. At this point in processing, all Selected User File records have been written, and the user is presented with a list of possible options which are now open to him.

These options are:

1. Return to NTS Master (will not catalog file)
2. Redo selection parameters
3. Review formatted count reports
4. Go to Batch Initiation (catalog selected file)
5. Go to Point Source Reporting processing
6. Catalog Selected Point Source File and return to NEDS Quick Look Master.

The user must enter the number which corresponds to his choice of processing options. This entry is edited for possible invalid entry. If the choice is invalid, the user is notified and can reenter his choice. A list of the valid selections and the corresponding program logic is shown as follows:

1. Transfer control back to the NTS Master Program - both the selection criteria and selected file records are not retained.

2. Blank out the selection criteria entries, delete all selected file records and return to selection criteria entry procedure.

3. Display the Formatted Count Report and then allow user to enter another option number. If this option is chosen a formatted report is displayed showing the number of records selected for each selection. See the sample Quick Look runs later in this section for report examples.

4. The Selected Point Source User File is catalogued as an index sequential file in the same sequence with the same file keys as the complete Point Source User File. The file name will be unique based on time/day which has been catalogued or after the file is now catalogued, control is transferred to Batch Initiation Processing.

5. The Selected Point Source File is sorted by State, county, plant, point, SCC and retained as a sequential file. Control is transferred to the Point Source Reporting processing.

6. The Selected Area Source User File is catalogued as an index sequential file in the same sequence with the same file keys as the complete Area Source User File. This file name will be unique based on time/day which has been added to the catalogued file name. If this file had already been catalogued or after the file is now catalogued, control is transferred back to NEDS Quick Look Master Program.

If prior to entering the above options, it is determined that no records have been selected, the user is given the opportunity to do one or more of the following:

1. Return to NTS Master
2. Redo selection parameters
3. Review formatted count report.

Based on user response to the above three options or the previously mentioned six options, the user has caused program control to be transferred to the next processing phase.

POINT SOURCE DATA REPORTING

If the user selects option 5 above, control is transferred to the point source reporting process. The primary function of the Point Source Reporting Process is to present either interactively or by remote printer the specified data from the previously selected Point Source User File records.

The user is asked a series of questions to establish where to present the report, which data fields to report, and what sequence they should be presented in. The questions and all valid responses are listed below:

1. Q - DO YOU WISH TO REVIEW REPORT INTERACTIVELY?

   A - Y

   A - N

The program will indicate the number of report lines that will be printed. If the response is NO, then the user is asked to enter a code to designate which remote printer should be used.

2. Q - ENTER REMOTE PRINTER CODE

The user indicates the appropriate remote printer code or enters PR if he wishes the report printed at the UNIVAC central site. After storing this information, the user is asked:

3. Q - ENTER NUMBER OF REPORT COPIES TO BE GENERATED
   The user has the option to have from 1 to 63 copies of the report printed.

4. Q - ENTER FIELD CODES OF FIELDS TO BE PRINTED (SEPARATE WITH COMMAS)

The field codes are entered separated by commas in the order to be displayed on the report. If it is desired to review the field code description table first, enter FIELD-CD at this point.

The labeling information for the report is built based on this information, and a tally of the number of characters to be printed is made. If this number of characters exceeds the maximum number of characters for the output device specified, the user is given the opportunity to request that the system 'drop' the last print field requested and each preceeding field until the output will 'fit' or start over and reenter the fields to be printed. After having established which fields are to be displayed the user can elect to sort the report records.

5. Q - DO YOU WISH TO SORT REPORT OUTPUT?
   A - Y (Specify sort sequence)
   A - N (Records are in order by Point Source User File key fields, i.e. sorted in order by STATE-COUNTY-PLANT-POINT-SCC.)

If the user chooses to sort the Selected File he is asked:

6. Q - ENTER FIELD CODE OF ALL FIELDS TO BE USED IN SORTING REPORT OUTPUT (SEPARATE WITH COMMAS AND USE A OR D WITH EACH FIELD CODE SPECIFYING ASCENDING OR DESCENDING SEQUENCE) Example 01A, 02A, 16D.

The response should be the field code(s) with a maximum of 20, separated by commas, of the sort fields in the order of the expected sort terminating each code with either an A or D for ascending or descending order. If A or D is not stated, A will be assumed.

The Selected User File is then either sorted or not, read to end of file and the required data fields reported in the order in which they were specified.

After completion of this process, the user can review more reports on another output device and sorted in another sequence. The above will be specified by responding to the following questions:

7. Q - DO YOU WISH TO CREATE ANOTHER REPORT?
8. Q - DO YOU WISH TO USE SAME OUTPUT DEVICE?
9. Q - DO YOU WISH TO USE SAME SORT SEQUENCE?

After having reviewed all required free formatted reports, the user is presented with a series of options which he can specify by entering the number of his choice. The options are:

1. Return to NTS master (will not catalog selected file).
2. Redo selection parameters.
3. Review Formatted Count Report.
4. Go to Batch Initiation (Catalog Selected File)
5. Review Free Formatted Select Report.
6. Catalog Selected Point Source File and return to NEDS Quick Look Master.

The selection of the following option numbers will produce the corresponding results.

1. Program Control will be transferred to the NTS Master Program Selected User File will not be catalogued.
2. Selected File will not be retained. Program control will be transferred to the Point Source Selection Subprogram.
3. The Formatted Count Report will be presented, and the user can select another option.
4. Selected File will be catalogued (if hasn't already been catalogued in this run) and control transferred to batch initiation processing.
5. Can return to specify yet another free formatted report layout.
6. Selected File will be catalogued (if hasn't already been catalogued in this run) and control transferred to NEDS Quick Look Master.

Based on one of the above options being selected, program control has been successfully transferred in order to accommodate the next user request.

AREA SOURCE DATA SELECTION

The area source source retrieval functions available in Quick Look operate in essentially the same manner as point source data selection. To access area source data, upon entering the Quick Look master program, the user may select AS. This will transfer control to the area source selection subprogram. Selection elements may be entered in the same manner as in selection of point source records.

First, a listing of the field code description table may be requested. For area sources, the following table will be displayed if the user so requests. Because the area source file contains a substantially larger number of data elements for each county file record than for each record and the NEDS point source file, a very lengthy field code description table will be produced. Therefore, because of the length of the table, it should not be requested unless genuinely necessary.

The discussion that follows presents in chronological order a list of questions, answers and system responses that would be expected to occur.

AREA SOURCE

FIELD CODE DESCRIPTION TABLE

- Each field code corresponds to a data element in the NEDS-USER-AR file.

- Field codes 0001-0075 relate to each of the input data fields on the NEDS area source form, Cards 1 through 5.

- Field codes 0076-0078 are reserved for future storage of motor vehicle registration data for use in motor vehicle emission calculations. These do not contain data at present.

- Field code 0079-0098 are reserved for addition of input data fields for new area source categories. These do not contain data at present.

- Field code 099 contains card 6 comments.

- Field codes 0100 - 1107 relate to calculated emissions, emission calculation flags, and year of record of hand calculated emission estimates for each of the 84 possible area source categories. An emission calculation flag of 1 indicates emission estimates are hand calculated emissions entered through area source card 7. An emission calculation flag of 2 indicates emissions are computer calculated.

- Field codes 1108-1112 relate to total county emissions of each pollutant.

0001 STATE
0002 COUNTY
0003 AQCR
0004 YEAR
0005 SIPEMISSION EST-PART
0006 SIPEMISSION EST-SOX
0007 SIPEMISSION EST-NOX
0008 SIPEMISSION EST-HC
0009 SIPEMISSION EST-CO
0010 SUL CONT AUTH COAL
0011 SUL CONT BITUM COAL
0012 SUL CONT DIST OIL
0013 SUL CONT RESID OIL
0014 ASH CONT ANTH COAL
0015 ASH CONT BITM COAL
0016 RES COAL ANTHROCITE
0017 RES COAL BITUMINOUS
0018 RES OIL DISTILLATE
0019 RES OIL RESIDUAL
0020 RES GAS NATURAL
0021 RES FUEL WOOD TONS

```
0022  COMMCL COAL ANTH TON
0023  COMMCL COAL BITM TON
0024  COMMCL OIL DISTILL
0025  COMMCL OIL RESIDUAL
0026  COMMCL GAS NATURAL
0027  COMMCL FUEL WOOD
0028  INDUS COAL ANTH TONS
0029  INDUS COAL BITM TONS
0030  INDUSTRIAL COKE
0031  INOUS OIL DISTILL
0032  INOUS OIL RESIDUAL
0033  INDUS GAS NATURAL
0034  INDUS FUEL WOOD TONS
0035  INDUS PROCESS GAS
0036  RES INC ON SITE TONS
0037  IND INC ON SITE TONS
0038  COM INC ON SITE TONS
0039  RES OPEN BURN TONS
0040  IND OPEN BURN TONS
0041  COM OPEN BURN TONS
0042  GAS LIGHT UEHICLE
0043  GAS HEAUY UEHICLE
0044  GAS FUEL OFF HIWAY
0045  DISEL FUEL HEAUY UEH
0046  DISEL FUEL OFF HIWAY
0047  DISEL FUEL RAILROAD
0048  DENSITY CODE POP
0049  LTO MIL ACADEMY
0050  LTO CIUIL AIRCRAFT
0051  LTO COMM AIRCRAFT
0052  UESSEL COAL TONS
0053  UESSEL DISEL OIL GAL
0054  UESSEL RESID OIL GAL
0055  UESSEL GAS GAL
0056  EUA SOL PUR TON YR
0057  EUA GAS MARK GAL
0058  UEH MILE LIM ACC
0059  UEH MILE RUR RD
0060  UEH MILE SURB RD
0061  UEH MILE URBAN RD
0062  DIRT RD MILE TRAU
0063  DIRT AIR STRIPS LTO
0064  CONSTRUCTIONS ACRES
0065  MISC WIND EROS ACRES
0066  LANDTILL ACRES
0067  FOR FIRES ACRE BURN
0068  FOR FIRE QUANT TN/AC
0069  MAN BURN ACRES
0070  MAN BURN TON/ACRE
0071  AGRIC ACRE BURN
```

```
0072  AGRIC TON/ACRE BURN
0073  ORCHARD HEATERS
0074  FROST CONT DAY FR YR
0075  STRUCT FIRES #/YR
0076  # OF AUTOS
0077  # OF TRUCKS LT 6000
0078  # TRUCK 6 TO 10 THOU
0079  SPARE
0080  SPARE
0081  SPARE
0082  SPARE
0083  SPARE
0084  SPARE
0085  SPARE
0086  SPARE
0087  SPARE
0088  SPARE
0089  SPARE
0090  SPARE
0091  SPARE
0092  SPARE
0093  SPARE
0094  SPARE
0095  SPARE
0096  SPARE
0097  SPARE
0098  SPARE
0099  CARD 6 COMMENTS
0100  S. CAT. 01 TOTAL TSP
0101  S. CAT. 01 TOTAL SOX
0102  S. CAT. 01 TOTAL NOX
0103  S. CAT. 01 TOTAL HC
0104  S. CAT. 01 TOTAL CO
0105  S. CAT. 01 TSP FLAG
0106  S. CAT. 01 SOX FLAG
0107  S. CAT. 01 NOX FLAG
0108  S. CAT. 01 HCS FLAG
0109  S. CAT. 01 COX FLAG
0110  YEAR OF RECORD
0111  COMMENTS
0112  S. CAT. 02 TOTAL TSP
0113  S. CAT. 02 TOTAL SOX
0114  S. CAT. 02 TOTAL NOX
0115  S. CAT. 02 TOTAL HCS
0116  S. CAT. 02 TOTAL COX
0117  S. CAT. 02 TSP FLAG
0118  S. CAT. 02 SOX FLAG
0119  S. CAT. 02 NOX FLAG
0120  S. CAT. 02 HCS FLAG
0121  S. CAT. 02 COX FLAG
0122  YEAR OF RECORD
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0123  COMMENTS
0124  S. CAT. 03 TOTAL TSP
0125  S. CAT. 03 TOTAL SOX
0126  S. CAT. 03 TOTAL NOX
0127  S. CAT. 03 TOTAL HCS
0128  S. CAT. 03 TOTAL COX
0129  S. CAT. 03 TSP FLAG
0130  S. CAT. 03 SOX FLAG
0131  S. CAT. 03 NOX FLAG
0132  S. CAT. 03 HCS FLAG
0133  S. CAT. 03 COX FLAG
0134  YEAR OF RECORD
0135  COMMENTS
0136  S. CAT. 04 TOTAL TSP
0137  S. CAT. 04 TOTAL SOX
0138  S. CAT. 04 TOTAL NOX
0139  S. CAT. 04 TOTAL HCS
0140  S. CAT. 04 TOTAL COX
0141  S. CAT. 04TSP FLAG
0142  S. CAT. 04 SOXFLAG
0143  S. CAT. 04 NOXFLAG
0144  S. CAT. 04 HCSFLAG
0145  S. CAT. 04 COXFLAG
0146  YEARS OF RECORD
0147  COMMENTS
0148  S. CAT. 05 TOTAL TSP
0149  S. CAT. 05 TOTAL SOX
0150  S. CAT. 05 TOTAL NOX
0151  S. CAT. 05 TOTAL HCS
0152  S. CAT. 05 TOTAL COX
0153  S. CAT. 05 TSP FLAG
0154  S. CAT. 05 SOX FLAG
0155  S. CAT. 05 NOX FLAG
0156  S. CAT. 05 HCS FLAG
0157  S. CAT. 05 COX FLAG
0158  YEAR OF RECORD
0159  COMMENTS
0160  S. CAT. 06 TOTAL TSP
0161  S. CAT. 06 TOTAL SOX
0162  S. CAT. 06 TOTAL NOX
0163  S. CAT. 06 TOTAL HCS
0164  S. CAT. 06 TOTAL COX
0165  S. CAT. 06 TSP FLAG
0166  S. CAT. 06 SOX FLAG
0167  S. CAT. 06 NOX FLAG
0168  S. CAT. 06 HCS FLAG
0169  S. CAT. 06 COX FLAG
0170  YEAR OF RECORD 06
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0171  COMMENTS 06
0172  S. CAT. 07 TOTAL TSP
0173  S. CAT. 07 TOTAL SOX
0174  S. CAT. 07 TOTAL NOX
0175  S. CAT. 07 TOTAL HCS
0176  S. CAT. 07 TOTAL COX
0177  S. CAT. 07 TSP FLAG
0178  S. CAT. 07 SOX FLAG
0179  S. CAT. 07 NOX FLAG
0180  S. CAT. 07 HCS FLAG
0181  S. CAT. 07 COX FLAG
0182  YEAR OF RECORD 07
0183  COMMENTS 07
0184  S. CAT. 08 TOTAL TSP
0185  S. CAT. 08 TOTAL SOX
0186  S. CAT. 08 TOTAL NOX
0187  S. CAT. 08 TOTAL HCS
0188  S. CAT. 08 TOTAL COX
0189  S. CAT. 08 TSP FLAG
0190  S. CAT. 08 SOX FLAG
0191  S. CAT. 08 NOX FLAG
0192  S. CAT. 08 HCS FLAG
0193  S. CAT. 08 COX FLAG
0194  YEAR OF RECORD 08
0195  COMMENTS 08
0196  S. CAT. 09 TOTAL TSP
0197  S. CAT. 09 TOTAL SOX
0198  S. CAT. 09 TOTAL NOX
0199  S. CAT. 09 TOTAL HCS
0200  S. CAT. 09 TOTAL COX
0201  S. CAT. 09 TSP FLAG
0202  S. CAT. 09 SOX FLAG
0203  S. CAT. 09 NOX FLAG
0204  S. CAT. 09 HCS FLAG
0205  S. CAT. 09 COX FLAG
0206  YEAR OF RECORD 09
0207  COMMENTS 09
0208  S. CAT. 10 TOTAL TSP
0209  S. CAT. 10 TOTAL SOX
0210  S. CAT. 10 TOTAL NOX
0211  S. CAT. 10 TOTAL HCS
0212  S. CAT. 10 TOTAL COX
0213  S. CAT. 10 TSP FLAG
0214  S. CAT. 10 SOX FLAG
0215  S. CAT. 10 NOX FLAG
0216  S. CAT. 10 HCS FLAG
0217  S. CAT. 10 COX FLAG
0218  YEAR OF RECORD 10
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0219  COMMENTS 10
0220  S. CAT. 11 TOTAL TSP
0221  S. CAT. 11 TOTAL SOX
0222  S. CAT. 11 TOTAL NOX
0223  S. CAT. 11 TOTAL HCS
0224  S. CAT. 11 TOTAL COX
0225  S. CAT. 11 TSP FLAG
0226  S. CAT. 11 SOX FLAG
0227  S. CAT. 11 NOX FLAG
0228  S. CAT. 11 HCS FLAG
0229  S. CAT. 11 COX FLAG
0230  YEAR OF RECORD 11
0231  COMMENTS 11
0232  S. CAT. 12 TOTAL TSP
0233  S. CAT. 12 TOTAL SOX
0234  S. CAT. 12 TOTAL NOX
0235  S. CAT. 12 TOTAL HCS
0236  S. CAT. 12 TOTAL COX
0237  S. CAT. 12 TSP FLAG
0238  S. CAT. 12 SOX FLAG
0239  S. CAT. 12 NOX FLAG
0240  S. CAT. 12 HCS FLAG
0241  S. CAT. 12 COX FLAG
0242  YEAR OF RECORD 12
0243  COMMENTS 12
0244  S. CAT. 13 TOTAL TSP
0245  S. CAT. 13 TOTAL SOX
0246  S. CAT. 13 TOTAL NOX
0247  S. CAT. 13 TOTAL HCS
0248  S. CAT. 13 TOTAL COX
0249  S. CAT. 13 TSP FLAG
0250  S. CAT. 13 SOX FLAG
0251  S. CAT. 13 NOX FLAG
0252  S. CAT. 13 HCS FLAG
0253  S. CAT. 13 COX FLAG
0254  YEAR OF RECORD 13
0255  COMMENTS 13
0256  S. CAT. 14 TOTAL TSP
0257  S. CAT. 14 TOTAL SOX
0258  S. CAT. 14 TOTAL NOX
0259  S. CAT. 14 TOTAL HCS
0260  S. CAT. 14 TOTAL COX
0261  S. CAT. 14 TSP FLAG
0262  S. CAT. 14 SOX FLAG
0263  S. CAT. 14 NOX FLAG
0264  S. CAT. 14 HCS FLAG
0265  S. CAT. 14 COX FLAG
0266  YEAR OF RECORD 14
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0267  COMMENTS 14
0268  S. CAT. 15 TOTAL TSP
0269  S. CAT. 15 TOTAL SOX
0270  S. CAT. 15 TOTAL NOX
0271  S. CAT. 15 TOTAL HCS
0272  S. CAT. 15 TOTAL COX
0273  S. CAT. 15 TSP FLAG
0274  S. CAT. 15 SOX FLAG
0275  S. CAT. 15 NOX FLAG
0276  S. CAT. 15 HCS FLAG
0277  S. CAT. 15 COX FLAG
0278  YEAR OF RECORD 15
0279  COMMENTS 15
0280  S. CAT. 16 TOTAL TSP
0281  S. CAT. 16 TOTAL SOX
0282  S. CAT. 16 TOTAL NOX
0283  S. CAT. 16 TOTAL HCS
0284  S. CAT. 16 TOTAL COX
0285  S. CAT. 16 TSP FLAG
0286  S. CAT. 16 SOX FLAG
0287  S. CAT. 16 NOX FLAG
0288  S. CAT. 16 HCS FLAG
0289  S. CAT. 16 COX FLAG
0290  YEAR OF RECORD 16
0291  COMMENTS 16
0292  S. CAT. 17 TOTAL TSP
0293  S. CAT. 17 TOTAL SOX
0294  S. CAT. 17 TOTAL NOX
0295  S. CAT. 17 TOTAL HCS
0296  S. CAT. 17 TOTAL COX
0297  S. CAT. 17 TSP FLAG
0298  S. CAT. 17 SOX FLAG
0299  S. CAT. 17 NOX FLAG
0300  S. CAT. 17 HCS FLAG
0301  S. CAT. 17 COX FLAG
0302  YEAR OF RECORD 17
0303  COMMENTS 17
0304  S. CAT. 18 TOTAL TSP
0305  S. CAT. 18 TOTAL SOX
0306  S. CAT. 18 TOTAL NOX
0307  S. CAT. 18 TOTAL HCS
0308  S. CAT. 18 TOTAL COX
0309  S. CAT. 18 TSP FLAG
0310  S. CAT. 18 SOX FLAG
0311  S. CAT. 18 NOX FLAG
0312  S. CAT. 18 HCS FLAG
0313  S. CAT. 18 COX FLAG
0314  YEAR OF RECORD 18
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0315  COMMENTS 18
0316  S. CAT. 19 TOTAL TSP
0317  S. CAT. 19 TOTAL SOX
0318  S. CAT. 19 TOTAL NOX
0319  S. CAT. 19 TOTAL HCS
0320  S. CAT. 19 TOTAL COX
0321  S. CAT. 19 TSP FLAG
0322  S. CAT. 19 SOX FLAG
0323  S. CAT. 19 NOX FLAG
0324  S. CAT. 19 HCS FLAG
0325  S. CAT. 19 COX FLAG
0326  YEAR OF RECORD 19
0327  COMMENTS 19
0328  S. CAT. 20 TOTAL TSP
0329  S. CAT. 20 TOTAL SOX
0330  S. CAT. 20 TOTAL NOX
0331  S. CAT. 20 TOTAL HCS
0332  S. CAT. 20 TOTAL COX
0333  S. CAT. 20 TSP FLAG
0334  S. CAT. 20 SOX FLAG
0335  S. CAT. 20 NOX FLAG
0336  S. CAT. 20 HCS FLAG
0337  S. CAT. 20 COX FLAG
0338  YEAR OF RECORD 20
0339  COMMENTS 20
0340  S. CAT. 21 TOTAL TSP
0341  S. CAT. 21 TOTAL SOX
0342  S. CAT. 21 TOTAL NOX
0343  S. CAT. 21 TOTAL HCS
0344  S. CAT. 21 TOTAL COX
0345  S. CAT. 21 TSP FLAG
0346  S. CAT. 21 SOX FLAG
0347  S. CAT. 21 NOX FLAG
0348  S. CAT. 21 HCS FLAG
0349  S. CAT. 21 COX FLAG
0350  YEAR OF RECORD 21
0351  COMMENTS 21
0352  S. CAT. 22 TOTAL TSP
0353  S. CAT. 22 TOTAL SOX
0354  S. CAT. 22 TOTAL NOX
0355  S. CAT. 22 TOTAL HCS
0356  S. CAT. 22 TOTAL COX
0357  S. CAT. 22 TSP FLAG
0358  S. CAT. 22 SOX FLAG
0359  S. CAT. 22 NOX FLAG
0360  S. CAT. 22 HCS FLAG
0361  S. CAT. 22 COX FLAG
0362  YEAR OF RECORD 22
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0363  COMMENTS 22
0364  S. CAT. 23 TOTAL TSP
0365  S. CAT. 23 TOTAL SOX
0366  S. CAT. 23 TOTAL NOX
0367  S. CAT. 23 TOTAL HCS
0368  S. CAT. 23 TOTAL COX
0369  S. CAT. 23 TSP FLAG
0370  S. CAT. 23 SOX FLAG
0371  S. CAT. 23 NOX FLAG
0372  S. CAT. 23 HCS FLAG
0373  S. CAT. 23 COX FLAG
0374  YEAR OF RECORD 23
0375  COMMENTS 23
0376  S. CAT. 24 TOTAL TSP
0377  S. CAT. 24 TOTAL SOX
0378  S. CAT. 24 TOTAL NOX
0379  S. CAT. 24 TOTAL HCS
0380  S. CAT. 24 TOTAL COX
0381  S. CAT. 24 TSP FLAG
0382  S. CAT. 24 SOX FLAG
0383  S. CAT. 24 NOX FLAG
0384  S. CAT. 24 HCS FLAG
0385  S. CAT. 24 COX FLAG
0386  YEAR OF RECORD 24
0387  COMMENTS 24
0388  S. CAT. 25 TOTAL TSP
0389  S. CAT. 25 TOTAL SOX
0390  S. CAT. 25 TOTAL NOX
0391  S. CAT. 25 TOTAL HCS
0392  S. CAT. 25 TOTAL COX
0393  S. CAT. 25 TSP FLAG
0394  S. CAT. 25 SOX FLAG
0395  S. CAT. 25 NOX FLAG
0396  S. CAT. 25 HCS FLAG
0397  S. CAT. 25 COX FLAG
0398  YEAR OF RECORD 25
0399  COMMENTS 25
0400  S. CAT. 26 TOTAL TSP
0401  S. CAT. 26 TOTAL SOX
0402  S. CAT. 26 TOTAL NOX
0403  S. CAT. 26 TOTAL HCS
0404  S. CAT. 26 TOTAL COX
0405  S. CAT. 26 TSP FLAG
0406  S. CAT. 26 SOX FLAG
0407  S. CAT. 26 NOX FLAG
0408  S. CAT. 26 HCS FLAG
0409  S. CAT. 26 COX FLAG
0410  YEAR OF RECORD 26
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0411  COMMENTS 26
0412  S. CAT. 27 TOTAL TSP
0413  S. CAT. 27 TOTAL SOX
0414  S. CAT. 27 TOTAL NOX
0415  S. CAT. 27 TOTAL HCS
0416  S. CAT. 27 TOTAL COX
0417  S. CAT. 27 TSP FLAG
0418  S. CAT. 27 SOX FLAG
0419  S. CAT. 27 NOX FLAG
0420  S. CAT. 27 HCS FLAG
0421  S. CAT. 27 COX FLAG
0422  YEAR OF RECORD 27
0423  COMMENTS 27
0424  S. CAT. 28 TOTAL TSP
0425  S. CAT. 28 TOTAL SOX
0426  S. CAT. 28 TOTAL NOX
0427  S. CAT. 28 TOTAL HCS
0428  S. CAT. 28 TOTAL COX
0429  S. CAT. 28 TSP FLAG
0430  S. CAT. 28 SOX FLAG
0431  S. CAT. 28 NOX FLAG
0432  S. CAT. 28 HCS FLAG
0433  S. CAT. 28 COX FLAG
0434  YEAR OF RECORD 28
0435  COMMENTS 28
0436  S. CAT. 29 TOTAL TSP
0437  S. CAT. 29 TOTAL SOX
0438  S. CAT. 29 TOTAL NOX
0439  S. CAT. 29 TOTAL HCS
0440  S. CAT. 29 TOTAL COX
0441  S. CAT. 29 TSP FLAG
0442  S. CAT. 29 SOX FLAG
0443  S. CAT. 29 NOX FLAG
0444  S. CAT. 29 HCS FLAG
0445  S. CAT. 29 COX FLAG
0446  YEAR OF RECORD 29
0447  COMMENTS 29
0448  S. CAT. 30 TOTAL TSP
0449  S. CAT. 30 TOTAL SOX
0450  S. CAT. 30 TOTAL NOX
0451  S. CAT. 30 TOTAL HCS
0452  S. CAT. 30 TOTAL COX
0453  S. CAT. 30 TSP FLAG
0454  S. CAT. 30 SOX FLAG
0455  S. CAT. 30 NOX FLAG
0456  S. CAT. 30 HCS FLAG
0457  S. CAT. 30 COX FLAG
0458  YEAR OF RECORD 30
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0459  COMMENTS 30
0460  S. CAT. 31 TOTAL TSP
0461  S. CAT. 31 TOTAL SOX
0462  S. CAT. 31 TOTAL NOX
0463  S. CAT. 31 TOTAL HCS
0464  S. CAT. 31 TOTAL COX
0465  S. CAT. 31 TSP FLAG
0466  S. CAT. 31 SOX FLAG
0467  S. CAT. 31 NOX FLAG
0468  S. CAT. 31 HCS FLAG
0469  S. CAT. 31 COX FLAG
0470  YEAR OF RECORD 31
0471  COMMENTS 31
0472  S. CAT. 32 TOTAL TSP
0473  S. CAT. 32 TOTAL SOX
0474  S. CAT. 32 TOTAL NOX
0475  S. CAT. 32 TOTAL HCS
0476  S. CAT. 32 TOTAL COX
0477  S. CAT. 32 TSP FLAG
0478  S. CAT. 32 SOX FLAG
0479  S. CAT. 32 NOX FLAG
0480  S. CAT. 32 HCS FLAG
0481  S. CAT. 32 COX FLAG
0482  YEAR OF RECORD 32
0483  COMMENTS 32
0484  S. CAT. 33 TOTAL TSP
0485  S. CAT. 33 TOTAL SOX
0486  S. CAT. 33 TOTAL NOX
0487  S. CAT. 33 TOTAL HCS
0488  S. CAT. 33 TOTAL COX
0489  S. CAT. 33 TSP FLAG
0490  S. CAT. 33 SOX FLAG
0491  S. CAT. 33 NOX FLAG
0492  S. CAT. 33 HCS FLAG
0493  S. CAT. 33 COX FLAG
0494  YEAR OF RECORD 33
0495  COMMENTS 33
0496  S. CAT. 34 TOTAL TSP
0497  S. CAT. 34 TOTAL SOX
0498  S. CAT. 34 TOTAL NOX
0499  S. CAT. 34 TOTAL HCS
0500  S. CAT. 34 TOTAL COX
0501  S. CAT. 34 TSP FLAG
0502  S. CAT. 34 SOX FLAG
0503  S. CAT. 34 NOX FLAG
0504  S. CAT. 34 HCS FLAG
0505  S. CAT. 34 COX FLAG
0506  YEAR OF RECORD 34
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0507  COMMENTS 34
0508  S. CAT. 35 TOTAL TSP
0509  S. CAT. 35 TOTAL SOX
0510  S. CAT. 35 TOTAL NOX
0511  S. CAT. 35 TOTAL HCS
0512  S. CAT. 35 TOTAL COX
0513  S. CAT. 35 TSP FLAG
0514  S. CAT. 35 SOX FLAG
0515  S. CAT. 35 NOX FLAG
0516  S. CAT. 35 HCS FLAG
0517  S. CAT. 35 COX FLAG
0518  YEAR OF RECORD 35
0519  COMMENTS 35
0520  S. CAT. 36 TOTAL TSP
0521  S. CAT. 36 TOTAL SOX
0522  S. CAT. 36 TOTAL NOX
0523  S. CAT. 36 TOTAL HCS
0524  S. CAT. 36 TOTAL COX
0525  S. CAT. 36 TSP FLAG
0526  S. CAT. 36 SOX FLAG
0527  S. CAT. 36 NOX FLAG
0528  S. CAT. 36 HCS FLAG
0529  S. CAT. 36 COX FLAG
0530  YEAR OF RECORD 36
0531  COMMENTS 36
0532  S. CAT. 37 TOTAL TSP
0533  S. CAT. 37 TOTAL SOX
0534  S. CAT. 37 TOTAL NOX
0535  S. CAT. 37 TOTAL HCS
0536  S. CAT. 37 TOTAL COX
0537  S. CAT. 37 TSP FLAG
0538  S. CAT. 37 SOX FLAG
0539  S. CAT. 37 NOX FLAG
0540  S. CAT. 37 HCS FLAG
0541  S. CAT. 37 COX FLAG
0542  YEAR OF RECORD 37
0543  COMMENTS 37
0544  S. CAT. 38 TOTAL TSP
0545  S. CAT. 38 TOTAL SOX
0546  S. CAT. 38 TOTAL NOX
0547  S. CAT. 38 TOTAL HCS
0548  S. CAT. 38 TOTAL COX
0549  S. CAT. 38 TSP FLAG
0550  S. CAT. 38 SOX FLAG
0551  S. CAT. 38 NOX FLAG
0552  S. CAT. 38 HCS FLAG
0553  S. CAT. 38 COX FLAG
0554  YEAR OF RECORD 38
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0555  COMMENTS 38
0556  S. CAT. 39 TOTAL TSP
0557  S. CAT. 39 TOTAL SOX
0558  S. CAT. 39 TOTAL NOX
0559  S. CAT. 39 TOTAL HCS
0560  S. CAT. 39 TOTAL COX
0561  S. CAT. 39 TSP FLAG
0562  S. CAT. 39 SOX FLAG
0563  S. CAT. 39 NOX FLAG
0564  S. CAT. 39 HCS FLAG
0565  S. CAT. 39 COX FLAG
0566  YEAR OF RECORD 39
0567  COMMENTS 39
0568  S. CAT. 40 TOTAL TSP
0569  S. CAT. 40 TOTAL SOX
0570  S. CAT. 40 TOTAL NOX
0571  S. CAT. 40 TOTAL HCS
0572  S. CAT. 40 TOTAL COX
0573  S. CAT. 40 TSP FLAG
0574  S. CAT. 40 SOX FLAG
0575  S. CAT. 40 NOX FLAG
0576  S. CAT. 40 HCS FLAG
0577  S. CAT. 40 COX FLAG
0578  YEAR OF RECORD 40
0579  COMMENTS 40
0580  S. CAT. 41 TOTAL TSP
0581  S. CAT. 41 TOTAL SOX
0582  S. CAT. 41 TOTAL NOX
0583  S. CAT. 41 TOTAL HCS
0584  S. CAT. 41 TOTAL COX
0585  S. CAT. 41 TSP FLAG
0586  S. CAT. 41 SOX FLAG
0587  S. CAT. 41 NOX FLAG
0588  S. CAT. 41 HCS FLAG
0589  S. CAT. 41 COX FLAG
0590  YEAR OF RECORD 41
0591  COMMENTS 41
0592  S. CAT. 42 TOTAL TSP
0593  S. CAT. 42 TOTAL SOX
0594  S. CAT. 42 TOTAL NOX
0595  S. CAT. 42 TOTAL HCS
0596  S. CAT. 42 TOTAL COX
0597  S. CAT. 42 TSP FLAG
0598  S. CAT. 42 SOX FLAG
0599  S. CAT. 42 NOX FLAG
0600  S. CAT. 42 HCS FLAG
0601  S. CAT. 42 COX FLAG
0602  YEAR OF RECORD 42
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0603  COMMENTS 42
0604  S. CAT. 43 TOTAL TSP
0605  S. CAT. 43 TOTAL SOX
0606  S. CAT. 43 TOTAL NOX
0607  S. CAT. 43 TOTAL HCS
0608  S. CAT. 43 TOTAL COX
0609  S. CAT. 43 TSP FLAG
0610  S. CAT. 43 SOX FLAG
0611  S. CAT. 43 NOX FLAG
0612  S. CAT. 43 HCS FLAG
0613  S. CAT. 43 COX FLAG
0614  YEAR OF RECORD 43
0615  COMMENTS 43
0616  S. CAT. 44 TOTAL TSP
0617  S. CAT. 44 TOTAL SOX
0618  S. CAT. 44 TOTAL NOX
0619  S. CAT. 44 TOTAL HCS
0620  S. CAT. 44 TOTAL COX
0621  S. CAT. 44 TSP FLAG
0622  S. CAT. 44 SOX FLAG
0623  S. CAT. 44 NOX FLAG
0624  S. CAT. 44 HCS FLAG
0625  S. CAT. 44 COX FLAG
0626  YEAR OF RECORD 44
0627  COMMENTS 44
0628  S. CAT. 45 TOTAL TSP
0629  S. CAT. 45 TOTAL SOX
0630  S. CAT. 45 TOTAL NOX
0631  S. CAT. 45 TOTAL HCS
0632  S. CAT. 45 TOTAL COX
0633  S. CAT. 45 TSP FLAG
0634  S. CAT. 45 SOX FLAG
0635  S. CAT. 45 NOX FLAG
0636  S. CAT. 45 HCS FLAG
0637  S. CAT. 45 COX FLAG
0638  YEAR OF RECORD 45
0639  COMMENTS 45
0640  S. CAT. 46 TOTAL TSP
0641  S. CAT. 46 TOTAL SOX
0642  S. CAT. 46 TOTAL NOX
0643  S. CAT. 46 TOTAL HCS
0644  S. CAT. 46 TOTAL COX
0645  S. CAT. 46 TSP FLAG
0646  S. CAT. 46 SOX FLAG
0647  S. CAT. 46 NOX FLAG
0648  S. CAT. 46 HCS FLAG
0649  S. CAT. 46 COX FLAG
0650  YEAR OF RECORD 46
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0651  COMMENTS 46
0652  S. CAT. 47 TOTAL TSP
0653  S. CAT. 47 TOTAL SOX
0654  S. CAT. 47 TOTAL NOX
0655  S. CAT. 47 TOTAL HCS
0656  S. CAT. 47 TOTAL COX
0657  S. CAT. 47 TSP FLAG
0658  S. CAT. 47 SOX FLAG
0659  S. CAT. 47 NOX FLAG
0660  S. CAT. 47 HCS FLAG
0661  S. CAT. 47 COX FLAG
0662  YEAR OF RECORD 47
0663  COMMENTS 47
0664  S. CAT. 48 TOTAL TSP
0665  S. CAT. 48 TOTAL SOX
0666  S. CAT. 48 TOTAL NOX
0667  S. CAT. 48 TOTAL HCS
0668  S. CAT. 48 TOTAL COX
0669  S. CAT. 48 TSP FLAG
0670  S. CAT. 48 SOX FLAG
0671  S. CAT. 48 NOX FLAG
0672  S. CAT. 48 HCS FLAG
0673  S. CAT. 48 COX FLAG
0674  YEAR OF RECORD 48
0675  COMMENTS 48
0676  S. CAT. 49 TOTAL TSP
0677  S. CAT. 49 TOTAL SOX
0678  S. CAT. 49 TOTAL NOX
0679  S. CAT. 49 TOTAL HCS
0680  S. CAT. 49 TOTAL COX
0681  S. CAT. 49 TSP FLAG
0682  S. CAT. 49 SOX FLAG
0683  S. CAT. 49 NOX FLAG
0684  S. CAT. 49 HCS FLAG
0685  S. CAT. 49 COX FLAG
0686  YEAR OF RECORD 49
0687  COMMENTS 49
0688  S. CAT. 50 TOTAL TSP
0689  S. CAT. 50 TOTAL SOX
0690  S. CAT. 50 TOTAL NOX
0691  S. CAT. 50 TOTAL HCS
0692  S. CAT. 50 TOTAL COX
0693  S. CAT. 50 TSP FLAG
0694  S. CAT. 50 SOX FLAG
0695  S. CAT. 50 NOX FLAG
0696  S. CAT. 50 HCS FLAG
0697  S. CAT. 50 COX FLAG
0698  YEAR OF RECORD 50
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0699  COMMENTS 50
0700  S. CAT. 51 TOTAL TSP
0701  S. CAT. 51 TOTAL SOX
0702  S. CAT. 51 TOTAL NOX
0703  S. CAT. 51 TOTAL HCS
0704  S. CAT. 51 TOTAL COX
0705  S. CAT. 51 TSP FLAG
0706  S. CAT. 51 SOX FLAG
0707  S. CAT. 51 NOX FLAG
0708  S. CAT. 51 HCS FLAG
0709  S. CAT. 51 COX FLAG
0710  YEAR OF RECORD 51
0711  COMMENTS 51
0712  S. CAT. 52 TOTAL TSP
0713  S. CAT. 52 TOTAL SOX
0714  S. CAT. 52 TOTAL NOX
0715  S. CAT. 52 TOTAL HCS
0716  S. CAT. 52 TOTAL COX
0717  S. CAT. 52 TSP FLAG
0718  S. CAT. 52 SOX FLAG
0719  S. CAT. 52 NOX FLAG
0720  S. CAT. 52 HCS FLAG
0721  S. CAT. 52 COX FLAG
0722  YEAR OF RECORD 52
0723  COMMENTS 52
0724  S. CAT. 53 TOTAL TSP
0725  S. CAT. 53 TOTAL SOX
0726  S. CAT. 53 TOTAL NOX
0727  S. CAT. 53 TOTAL HCS
0728  S. CAT. 53 TOTAL COX
0729  S. CAT. 53 TSP FLAG
0730  S. CAT. 53 SOX FLAG
0731  S. CAT. 53 NOX FLAG
0732  S. CAT. 53 HCS FLAG
0733  S. CAT. 53 COX FLAG
0734  YEAR OF RECORD 53
0735  COMMENTS 53
0736  S. CAT. 54 TOTAL TSP
0737  S. CAT. 54 TOTAL SOX
0738  S. CAT. 54 TOTAL NOX
0739  S. CAT. 54 TOTAL HCS
0740  S. CAT. 54 TOTAL COX
0741  S. CAT. 54 TSP FLAG
0742  S. CAT. 54 SOX FLAG
0743  S. CAT. 54 NOX FLAG
0744  S. CAT. 54 HCS FLAG
0745  S. CAT. 54 COX FLAG
0746  YEAR OF RECORD 54
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0747  COMMENTS 54
0748  S. CAT. 55 TOTAL TSP
0749  S. CAT. 55 TOTAL SOX
0750  S. CAT. 55 TOTAL NOX
0751  S. CAT. 55 TOTAL HCS
0752  S. CAT. 55 TOTAL COX
0753  S. CAT. 55 TSP FLAG
0754  S. CAT. 55 SOX FLAG
0755  S. CAT. 55 NOX FLAG
0756  S. CAT. 55 HCS FLAG
0757  S. CAT. 55 COX FLAG
0758  YEAR OF RECORD 55
0759  COMMENTS 55
0760  S. CAT. 56 TOTAL TSP
0761  S. CAT. 56 TOTAL SOX
0762  S. CAT. 56 TOTAL NOX
0763  S. CAT. 56 TOTAL HCS
0764  S. CAT. 56 TOTAL COX
0765  S. CAT. 56 TSP FLAG
0766  S. CAT. 56 SOX FLAG
0767  S. CAT. 56 NOX FLAG
0768  S. CAT. 56 HCS FLAG
0769  S. CAT. 56 COX FLAG
0770  YEAR OF RECORD 56
0771  COMMENTS 56
0772  S. CAT. 57 TOTAL TSP
0773  S. CAT. 57 TOTAL SOX
0774  S. CAT. 57 TOTAL NOX
0775  S. CAT. 57 TOTAL HCS
0776  S. CAT. 57 TOTAL COX
0777  S. CAT. 57 TSP FLAG
0778  S. CAT. 57 SOX FLAG
0779  S. CAT. 57 NOX FLAG
0780  S. CAT. 57 HCS FLAG
0781  S. CAT. 57 COX FLAG
0782  YEAR OF RECORD 57
0783  COMMENTS 57
0784  S. CAT. 58 TOTAL TSP
0785  S. CAT. 58 TOTAL SOX
0786  S. CAT. 58 TOTAL NOX
0787  S. CAT. 58 TOTAL HCS
0788  S. CAT. 58 TOTAL COX
0789  S. CAT. 58 TSP FLAG
0790  S. CAT. 58 SOX FLAG
0791  S. CAT. 58 NOX FLAG
0792  S. CAT. 58 HCS FLAG
0793  S. CAT. 58 COX FLAG
0794  YEAR OF RECORD 58
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0795  COMMENTS 58
0796  S. CAT. 59 TOTAL TSP
0797  S. CAT. 59 TOTAL SOX
0798  S. CAT. 59 TOTAL NOX
0799  S. CAT. 59 TOTAL HCS
0800  S. CAT. 59 TOTAL COX
0801  S. CAT. 59 TSP FLAG
0802  S. CAT. 59 SOX FLAG
0803  S. CAT. 59 NOX FLAG
0804  S. CAT. 59 HCS FLAG
0805  S. CAT. 59 COX FLAG
0806  YEAR OF RECORD 59
0807  COMMENTS 59
0808  S. CAT. 60 TOTAL TSP
0809  S. CAT. 60 TOTAL SOX
0810  S. CAT. 60 TOTAL NOX
0811  S. CAT. 60 TOTAL HCS
0812  S. CAT. 60 TOTAL COX
0813  S. CAT. 60 TSP FLAG
0814  S. CAT. 60 SOX FLAG
0815  S. CAT. 60 NOX FLAG
0816  S. CAT. 60 HCS FLAG
0817  S. CAT. 60 COX FLAG
0818  YEAR OF RECORD 60
0819  COMMENTS 60
0820  S. CAT. 61 TOTAL TSP
0821  S. CAT. 61 TOTAL SOX
0822  S. CAT. 61 TOTAL NOX
0823  S. CAT. 61 TOTAL HCS
0824  S. CAT. 61 TOTAL COX
0825  S. CAT. 61 TSP FLAG
0826  S. CAT. 61 SOX FLAG
0827  S. CAT. 61 NOX FLAG
0828  S. CAT. 61 HCS FLAG
0829  S. CAT. 61 COX FLAG
0830  YEAR OF RECORD 61
0831  COMMENTS 61
0832  S. CAT. 62 TOTAL TSP
0833  S. CAT. 62 TOTAL SOX
0834  S. CAT. 62 TOTAL NOX
0835  S. CAT. 62 TOTAL HCS
0836  S. CAT. 62 TOTAL COX
0837  S. CAT. 62 TSP FLAG
0838  S. CAT. 62 SOX FLAG
0839  S. CAT. 62 NOX FLAG
0840  S. CAT. 62 HCS FLAG
0841  S. CAT. 62 COX FLAG
0842  YEAR OF RECORD 62
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0843  COMMENTS 62
0844  S. CAT. 63 TOTAL TSP
0845  S. CAT. 63 TOTAL SOX
0846  S. CAT. 63 TOTAL NOX
0847  S. CAT. 63 TOTAL HCS
0848  S. CAT. 63 TOTAL COX
0849  S. CAT. 63 TSP FLAG
0850  S. CAT. 63 SOX FLAG
0851  S. CAT. 63 NOX FLAG
0852  S. CAT. 63 HCS FLAG
0853  S. CAT. 63 COX FLAG
0854  YEAR OF RECORD 63
0855  COMMENTS 63
0856  S. CAT. 64 TOTAL TSP
0857  S. CAT. 64 TOTAL SOX
0858  S. CAT. 64 TOTAL NOX
0859  S. CAT. 64 TOTAL HCS
0860  S. CAT. 64 TOTAL COX
0861  S. CAT. 64 TSP FLAG
0862  S. CAT. 64 SOX FLAG
0863  S. CAT. 64 NOX FLAG
0864  S. CAT. 64 HCS FLAG
0865  S. CAT. 64 COX FLAG
0866  YEAR OF RECORD 64
0867  COMMENTS 64
0868  S. CAT. 65 TOTAL TSP
0869  S. CAT. 65 TOTAL SOX
0870  S. CAT. 65 TOTAL NOX
0871  S. CAT. 65 TOTAL HCS
0872  S. CAT. 65 TOTAL COX
0873  S. CAT. 65 TSP FLAG
0874  S. CAT. 65 SOX FLAG
0875  S. CAT. 65 NOX FLAG
0876  S. CAT. 65 HCS FLAG
0877  S. CAT. 65 COX FLAG
0878  YEAR OF RECORD 65
0879  COMMENTS 65
0880  S. CAT. 66 TOTAL TSP
0881  S. CAT. 66 TOTAL SOX
0882  S. CAT. 66 TOTAL NOX
0883  S. CAT. 66 TOTAL HCS
0884  S. CAT. 66 TOTAL COX
0885  S. CAT. 66 TSP FLAG
0886  S. CAT. 66 SOX FLAG
0887  S. CAT. 66 NOX FLAG
0888  S. CAT. 66 HCS FLAG
0889  S. CAT. 66 COX FLAG
0890  YEAR OF RECORD 66
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0891  COMMENTS 66
0892  S. CAT. 67 TOTAL TSP
0893  S. CAT. 67 TOTAL SOX
0894  S. CAT. 67 TOTAL NOX
0895  S. CAT. 67 TOTAL HCS
0896  S. CAT. 67 TOTAL COX
0897  S. CAT. 67 TSP FLAG
0898  S. CAT. 67 SOX FLAG
0899  S. CAT. 67 NOX FLAG
0900  S. CAT. 67 HCS FLAG
0901  S. CAT. 67 COX FLAG
0902  YEAR OF RECORD 67
0903  COMMENTS 67
0904  S. CAT. 68 TOTAL TSP
0905  S. CAT. 68 TOTAL SOX
0906  S. CAT. 68 TOTAL NOX
0907  S. CAT. 68 TOTAL HCS
0908  S. CAT. 68 TOTAL COX
0909  S. CAT. 68 TSP FLAG
0910  S. CAT. 68 SOX FLAG
0911  S. CAT. 68 NOX FLAG
0912  S. CAT. 68 HCS FLAG
0913  S. CAT. 68 COX FLAG
0914  YEAR OF RECORD 68
0915  COMMENTS 68
0916  S. CAT. 69 TOTAL TSP
0917  S. CAT. 69 TOTAL SOX
0918  S. CAT. 69 TOTAL NOX
0919  S. CAT. 69 TOTAL HCS
0920  S. CAT. 69 TOTAL COX
0921  S. CAT. 69 TSP FLAG
0922  S. CAT. 69 SOX FLAG
0923  S. CAT. 69 NOX FLAG
0924  S. CAT. 69 HCS FLAG
0925  S. CAT. 69 COX FLAG
0926  YEAR OF RECORD 69
0927  COMMENTS 69
0928  S. CAT. 70 TOTAL TSP
0929  S. CAT. 70 TOTAL SOX
0930  S. CAT. 70 TOTAL NOX
0931  S. CAT. 70 TOTAL HCS
0932  S. CAT. 70 TOTAL COX
0933  S. CAT. 70 TSP FLAG
0934  S. CAT. 70 SOX FLAG
0935  S. CAT. 70 NOX FLAG
0936  S. CAT. 70 HCS FLAG
0937  S. CAT. 70 COX FLAG
0938  YEAR OF RECORD 70
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0939  COMMENTS 70
0940  S. CAT. 71 TOTAL TSP
0941  S. CAT. 71 TOTAL SOX
0942  S. CAT. 71 TOTAL NOX
0943  S. CAT. 71 TOTAL HCS
0944  S. CAT. 71 TOTAL COX
0945  S. CAT. 71 TSP FLAG
0946  S. CAT. 71 SOX FLAG
0947  S. CAT. 71 NOX FLAG
0948  S. CAT. 71 HCS FLAG
0949  S. CAT. 71 COX FLAG
0950  YEAR OF RECORD 71
0951  COMMENTS 71
0952  S. CAT. 72 TOTAL TSP
0953  S. CAT. 72 TOTAL SOX
0954  S. CAT. 72 TOTAL NOX
0955  S. CAT. 72 TOTAL HCS
0956  S. CAT. 72 TOTAL COX
0957  S. CAT. 72 TSP FLAG
0958  S. CAT. 72 SOX FLAG
0959  S. CAT. 72 NOX FLAG
0960  S. CAT. 72 HCS FLAG
0961  S. CAT. 72 COX FLAG
0962  YEAR OF RECORD 72
0963  COMMENTS 72
0964  S. CAT. 73 TOTAL TSP
0965  S. CAT. 73 TOTAL SOX
0966  S. CAT. 73 TOTAL NOX
0967  S. CAT. 73 TOTAL HCS
0968  S. CAT. 73 TOTAL COX
0969  S. CAT. 73 TSP FLAG
0970  S. CAT. 73 SOX FLAG
0971  S. CAT. 73 NOX FLAG
0972  S. CAT. 73 HCS FLAG
0973  S. CAT. 73 COX FLAG
0974  YEAR OF RECORD 73
0975  COMMENTS 73
0976  S. CAT. 74 TOTAL TSP
0977  S. CAT. 74 TOTAL SOX
0978  S. CAT. 74 TOTAL NOX
0979  S. CAT. 74 TOTAL HCS
0980  S. CAT. 74 TOTAL COX
0981  S. CAT. 74 TSP FLAG
0982  S. CAT. 74 SOX FLAG
0983  S. CAT. 74 NOX FLAG
0984  S. CAT. 74 HCS FLAG
0985  S. CAT. 74 COX FLAG
0986  YEAR OF RECORD 74
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0987  COMMENTS 74
0988  S. CAT. 75 TOTAL TSP
0989  S. CAT. 75 TOTAL SOX
0990  S. CAT. 75 TOTAL NOX
0991  S. CAT. 75 TOTAL HCS
0992  S. CAT. 75 TOTAL COX
0993  S. CAT. 75 TSP FLAG
0994  S. CAT. 75 SOX FLAG
0995  S. CAT. 75 NOX FLAG
0996  S. CAT. 75 HCS FLAG
0997  S. CAT. 75 COX FLAG
0998  YEAR OF RECORD 75
0999  COMMENTS 75
1000  S. CAT. 76 TOTAL TSP
1001  S. CAT. 76 TOTAL SOX
1002  S. CAT. 76 TOTAL NOX
1003  S. CAT. 76 TOTAL HCS
1004  S. CAT. 76 TOTAL COX
1005  S. CAT. 76 TSP FLAG
1006  S. CAT. 76 SOX FLAG
1007  S. CAT. 76 NOX FLAG
1008  S. CAT. 76 HCS FLAG
1009  S. CAT. 76 COX FLAG
1010  YEAR OF RECORD 76
1011  COMMENTS 76
1012  S. CAT. 77 TOTAL TSP
1013  S. CAT. 77 TOTAL SOX
1014  S. CAT. 77 TOTAL NOX
1015  S. CAT. 77 TOTAL HCS
1016  S. CAT. 77 TOTAL COX
1017  S. CAT. 77 TSP FLAG
1018  S. CAT. 77 SOX FLAG
1019  S. CAT. 77 NOX FLAG
1020  S. CAT. 77 HCS FLAG
1021  S. CAT. 77 COX FLAG
1022  YEAR OF RECORD 77
1023  COMMENTS 77
1024  S. CAT. 78 TOTAL TSP
1025  S. CAT. 78 TOTAL SOX
1026  S. CAT. 78 TOTAL NOX
1027  S. CAT. 78 TOTAL HCS
1028  S. CAT. 78 TOTAL COX
1029  S. CAT. 78 TSP FLAG
1030  S. CAT. 78 SOX FLAG
1031  S. CAT. 78 NOX FLAG
1032  S. CAT. 78 HCS FLAG
1033  S. CAT. 78 COX FLAG
1034  YEAR OF RECORD 78
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1035  COMMENTS 78
1036  S. CAT. 79 TOTAL TSP
1037  S. CAT. 79 TOTAL SOX
1038  S. CAT. 79 TOTAL NOX
1039  S. CAT. 79 TOTAL HCS
1040  S. CAT. 79 TOTAL COX
1041  S. CAT. 79 TSP FLAG
1042  S. CAT. 79 SOX FLAG
1043  S. CAT. 79 NOX FLAG
1044  S. CAT. 79 HCS FLAG
1045  S. CAT. 79 COX FLAG
1046  YEAR OF RECORD 79
1047  COMMENTS 79
1048  S. CAT. 80 TOTAL TSP
1049  S. CAT. 80 TOTAL SOX
1050  S. CAT. 80 TOTAL NOX
1051  S. CAT. 80 TOTAL HCS
1052  S. CAT. 80 TOTAL COX
1053  S. CAT. 80 TSP FLAG
1054  S. CAT. 80 SOX FLAG
1055  S. CAT. 80 NOX FLAG
1056  S. CAT. 80 HCS FLAG
1057  S. CAT. 80 COX FLAG
1058  YEAR OF RECORD 80
1059  COMMENTS 80
1060  S. CAT. 81 TOTAL TSP
1061  S. CAT. 81 TOTAL SOX
1062  S. CAT. 81 TOTAL NOX
1063  S. CAT. 81 TOTAL HCS
1064  S. CAT. 81 TOTAL COX
1065  S. CAT. 81 TSP FLAG
1066  S. CAT. 81 SOX FLAG
1067  S. CAT. 81 NOX FLAG
1068  S. CAT. 81 HCS FLAG
1069  S. CAT. 81 COX FLAG
1070  YEAR OF RECORD 81
1071  COMMENTS 81
1072  S. CAT. 82 TOTAL TSP
1073  S. CAT. 82 TOTAL SOX
1074  S. CAT. 82 TOTAL NOX
1075  S. CAT. 82 TOTAL HCS
1076  S. CAT. 82 TOTAL COX
1077  S. CAT. 82 TSP FLAG
1078  S. CAT. 82 SOX FLAG
1079  S. CAT. 82 NOX FLAG
1080  S. CAT. 82 HCS FLAG
1081  S. CAT. 82 COX FLAG
1082  YEAR OF RECORD 82
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1083  COMMENTS 82
1084  S. CAT. 83 TOTAL TSP
1085  S. CAT. 83 TOTAL SOX
1086  S. CAT. 83 TOTAL NOX
1087  S. CAT. 83 TOTAL HCS
1088  S. CAT. 83 TOTAL COX
1089  S. CAT. 83 TSP FLAG
1090  S. CAT. 83 SOX FLAG
1091  S. CAT. 83 NOX FLAG
1092  S. CAT. 83 HCS FLAG
1093  S. CAT. 83 COX FLAG
1094  YEAR OF RECORD 83
1095  COMMENTS 83
1096  S. CAT. 84 TOTAL TSP
1097  S. CAT. 84 TOTAL SOX
1098  S. CAT. 84 TOTAL NOX
1099  S. CAT. 84 TOTAL HCS
1100  S. CAT. 84 TOTAL COX
1101  S. CAT. 84 TSP FLAG
1102  S. CAT. 84 SOX FLAG
1103  S. CAT. 84 NOX FLAG
1104  S. CAT. 84 HCS FLAG
1105  S. CAT. 84 COX FLAG
1106  YEAR OF RECORD 84
1107  COMMENTS 84
1108  TOT CNTY EMISS-PERT
1109  TOT CNTY EMISS-SOX
1110  TOT CNTY EMISS-NOX
1111  TOT CNTY EMISS-HC
1112  TOT CNTY EMISS-CO
```

1. Q - DO YOU WISH TO SEE FIELD CODE DESCRIPTION TABLE?
   A - Y (Display tables)
   A - N (Do not display table)
2. Q - ENTER SELECTION ELEMENT
   A - (Example) 1 EQ 01 or 05
   A - HELP (Display description of valid selection element entry)
   A - FIELD-CD (Display field code and field description table)

The previously entered selection element is edited for valid field code, qualifier, field value, and connector. Also not more than six field values can be entered for a single field code. If any of these edits is failed, the appropriate error message is displayed and the user is allowed to reenter the selection element. A maximum of 99 valid selection elements may be entered for any run.

3. Q - MORE ELEMENTS IN CURRENT SELECTION?
   A - Y
   A - N
   A - DISPLAY (All elements of current selection are displayed)

If the answer is no, the elements within the current selection entry will be examined to determine if state code has been specified as part of the selection criteria. If not, a message is displayed to the user and he is given the opportunity to add one or more fields to his selection criteria.

4. Q - ARE THERE MORE SELECTION ENTRIES?
   A - Y
   A - N
   A - DISPLAY (All selection entries are displayed)

If the answer is yes, again the table is checked for maximum number of entries as described previously. If the answer is no, the user has indicated that all selection criteria has been entered and record selection can begin.

As the file is read, each element within the current selection is compared to the file data to determine if the record meets the selection criteria. If the record meets the selection criteria as specified by all of the elements within the selection criteria, the record is written to the Select Area Source User File.

This procedure continues until all applicable file records are compared to the specified selection entries for possible selection.

A count is kept of the number of records selected and written to the Selected Area Source User File and which selection criteria entry(s) caused this record to be extracted from the Area Source User File. At this point in processing, all Selected User File records have been written, and the user is presented with a list of possible options which are now open to him.

These options are:

1. Return to NTS Master (will not catalog file)
2. Redo selection parameters.
3. Review formatted count report.
4. Go to Batch Initiation (catalog selected file)
5. Go to Area Source Reporting processing.
6. Catalog Selected Area Source File and return to NEDS Quick Look Master.

The user must enter the number which corresponds to his choice of processing options. This entry is edited for possible invalid entry. If the choice is invalid, the user is notified and can reenter his choice. A list of the valid selections and the corresponding program logic is shown as follows:

1. Transfer control back to the NTS Master Program - both the selection criteria and selected file records are not retained.

2. Blank out the selection criteria entries, delete all selected file records and return to selection criteria entry procedure.

3. Display the Formatted Count Report and then allow user to enter another option number.

4. Batch initiation is not a valid option for area source data reporting at present, since no area source report programs are currently available in The Quick Look remote batch construction subprogram. If option 4 is selected a message will be printed indicating that this option is not currently available and the user will be allowed to select another option.

5. The Selected Area Source File is sorted by State, county and AQCR and retained in an index-sequential file. Control is transferred to the Area Source Reporting Processing.

6. The Selected Area Source User File is catalogued as an index sequential file in the same sequence with the same file keys as the complete Area Source User File. This file name will be unique based on time/day which has been added to the cataloged file name. If this file had already been catalogued or after the file is now catalogued, control is transferred back to NEDS Quick Look Master Program.

If prior to entering the above options, it is determined that no records have been selected, the user is given the opportunity to do one or more of the following:

1. Return to NTS Master.
2. Redo selection parameters.
3. Review formatted count report.

Based on user response to the above three options or the previously mentioned six options, the user has caused program control to be transferred to the next processing phase.

AREA SOURCE REPORT PROCESSING

Selection of option 5 above will transfer control to the area source report processing function. The user may develop a free formatted one-line report for each selected record in the same manner as described for point source report processing. Upon completion of report processing any of the following options may be selected:

1. Return to NTS master (will not catalog selected file)
2. Redo selection paramters.
3. Review Formatted Count Report.
4. Go to Batch Initiation (Catalog Selected File)
5. Review Free Formatted Select Report.
6. Catalog Selected Area Source File and return to NEDS Quick Look Master.

Based on one of the above options being selected, program control has been successfully transferred in order to accommodate the next user request.

INITIATION OF BATCH RUNS

The Quick Look system includes the capability to initate batch runs of several standard NEDS report programs. The runs may be based on files of selected records produced earlier in Quick Look processing, thus allowing the generation of a standard format NEDS report based on the more flexible selection criteria available with Quick Look.

At present standard NEDS reports available through Quick Look batch initiation are:

- Full Point Source Listing (NE215)
- Condensed Point Source Listing (NE207)
- Plant Name Report (NE252)
- Missing Data Items Report (NE200)
- Emission by SCC Report (NE257)

Users may also take advantage of Quick Look selection capabilities for other NEDS reports not available through batch initiation, by cataloging files of selected point and area source records and modifying runstreams for normal batch submittals to assign the specially selected point and/or area source files instead of the full NEDS-USER (point source) or NEDS-USER-AR. (area source).

Upon selection of option 4 under Quick Look point source data selection, control is transferred to the NEDS remote batch construction subprogram. (Since no area source reports are currently available in the remote batch construction subprogram, selection of option 4 in Quick Look area source data selection is not a valid option at present). This program will construct the necessary run card and control cards to submit a batch run for any of the available batch programs. Upon entering this subprogram, the user will first be asked if he needs a list of valid commands. The question will appear as:

```
IF YOU NEED A LISTING OF THE VALID COMMANDS, ENTER YES.
OTHERWISE ENTER NO.
YES OR NO?
```

If the user has indicated in the master program that instructions are required, the description of the procedure will be omitted and the command list query abbreviated as follows:

```
COMMAND LIST------YES OR NO?
```

If the user reply is YES, i.e. a command list is needed, the following list and description of commands will be displayed:

VALID COMMANDS ARE:

REPORT=??,??,...,??	-REPORTS WANTED. ?? REPRESENTS THE REPORT CODE. ONE TO SIX CODES, WITHOUT DUPLICATION & IN ANY ORDER, MAY BE ENTERED. VALID REPORT CODES ARE: - MD = MISSING DATA ITEMS REPORT - DP = CONDENSED POINT SOURCE LISTING - FP = FULL POINT SOURCE LISTING - PN = PLANT NAME LIST - SS = SCC SUMMARY REPORT
SORT=??,??,...??	-SORT SEQUENCE. A MAXIMUM OF TWENTY SORT OPTIONS ARE AVAILABLE. ORDER OF ENTRY IS HIERARCHICAL BROAD TO SPECIFIC. DEFAULT SORT SEQUENCE IS STATE, COUNTY, PLANT NUMBER, POINT NUMBER, SCC. VALID SORT CODES ARE SHOWN BELOW: 01 = STATE 02 = COUNTY 03 = PLANT NUMBER 04 = POINT NUMBER 05 = SCC 06 = OWNERSHIP 07 = SIC 08 = ESTIMATION METHOD 09 = AQCR

10 = PLANT NAME
11 = POLLUTANT VALUE
12 = YEAR OF RECORD
13 = CONTROL EQUIPMENT
14 = CONTROL EFFICIENCY
15 = SULFUR CONTENT
16 = ASH CONTENT
17 = CITY
18 = UTM COORDINATES
19 = OPERATING RATE
20 = CONFIDENTIALITY

POLL=? - POLLUTANT CODE. A NUMBER SPECIFYING ONE OF FIVE POLLUTANTS TO BE SELECTED. (NO VALUE SPECIFIED MEANS "SELECT ALL") VALID POLLUTANT CODES ARE:

1 = PARTICULATE
2 = SULFUR DIOXIDE
3 = NITROGEN OXIDE
4 = HYDROCARBONS
5 = CARBON MONOXIDE

CONF=... - CONFIDENTIALITY CODE. IF INCORRECTLY ENTERED OR OMITTED, ONLY NON-CONFIDENTIAL DATA WILL BE REPORTED.

SIG=? - THE NUMBER OF SIGNIFICANT DIGITS TO BE USED FOR REPORTED DATA. (NO VALUE SPECIFIED = 3)

UNITS=? - THE DIGIT 1 IF METRIC UNITS ARE DESIRED FOR REPORTED DATA. (STANDARD IS ENGLISH)

HELP - WILL PRINT THIS LIST OF VALID COMMANDS.

END - ENDS COMMAND ENTRIES. ALL DESIRED COMMAND DATA HAS BEEN ENTERED.

THE ENTIRE COMMAND CAN BE ENTERED OR THE COMMAND CAN BE ABBREVIATED TO THE FIRST TWO LETTERS OF THE COMMAND. FOR EXAMPLE, UNITS=1 & UN=1 BOTH INDICATE METRIC UNITS ARE DESIRED.

As soon as this list is printed (or immediately if no list is requested) the user will be asked to indicate the reports to be created.

"REPORT" COMMAND

Up to six report types can be requested via the REPORT command. The codes indicating these reports (see above list of valid commands) can be entered in any order but no duplicate codes in any one REPORT command are allowed. At least one report must be requested and the REPORT command must be given at least once before the END command, or remote batch construction will terminate. The report code(s) will be validated and an error message printed if errors are detected.

CONTROL CARD COMMANDS

The commands "SORT", "CONF", "SIG", and "UNITS" are used to construct the standard NEDS control card. All of these commands are optional inasmuch as all have default values (see above list of valid commands). The control card commands will be validated and an error message printed if errors are detected.

"SELECT" CARD

One select card filled, with asterisks, will be written automatically by the subprogram. This will cause all records from the catalogued selected file to be used by the report program(s).

The HELP command may be entered in response to any COMMAND? prompt. This will cause the list of valid commands to be printed followed once again by the COMMAND? prompt.

Only when the user is certain he has entered all appropriate report codes and control data should the END command be given. The command data is then fixed until the runs are submitted. When the END command is given the subprogram will ascertain whether or not valid report codes have been entered. If these entries have not been made, program control will be transferred to the beginning of Batch Initiation processing, where the user can either return to the NTS Master Program or reenter all commands for batch report generation. If this necessary command data has been entered, all command data as specified or implied by the user will be displayed for final verification as in the following example:

REPORTS SPECIFIED:
PLANT NAME LIST
FULL POINT SOURCE LISTING
CONTROL CARD DATA:
SORT SEQUENCE = 01, 02, 03, 04, 05
SIGNIFICANT DIG = 5
METRIC UNITS

The user will then be asked, "COMMAND DATA CORRECT? (YES OR NO)".

If NO is entered, program control will be transferred to the beginning of Batch Initiation processing, where the user can either return to the NTS Master Program or reenter all commands for batch report generation. If YES is entered, the variable information for each report type specified will be requested.

VARIABLE ENTRIES

Some report programs require a program control card and other user entries in order to specify various options. Upon user request, a description of the control card options will be printed if the specified report is one of these. The user must then enter this control information as the subprogram may request.

In order to interactively construct remote batch runs, certain RUN card information is required. This required information includes priority, options, run identifier, account number, project code, and run time. The account number and project code will be automatically retrieved from the RUN card with which the user originally signed onto the terminal Account number and project code therefore cannot be altered except by signing on anew. Similarly the RESTART option (R), core size, tapes and disks will be automatically assigned by the subprogram. The remainder of the required RUN card information (run identifier, run time, and priority) as well as certain SYM card information (terminal id and number of copies requested) which may vary for each run will be requested within the subprogram.

The run identifier is a maximum of six characters long. The first two characters are the NCC assigned bin number and the last four are any characters the user wishes to assign to uniquely identify his run. It is possible to have runs with the same identifiers but it is not recommended since tracing runs becomes much more difficult. If the run identifier is not entered, the run identifier from the run card the user signed on the terminal with will be used. The run id will be entered following the instruction "ENTER YOUR RUN ID (MAX. 6 CHAR.)" and the prompt "RUN TIME?".

The run time is a maximum of three digits long, and must be entered (there is no "default" time). The user must estimate the SUP time in minutes which will be required to complete his request. The run time will be entered following the instruction "ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR." and prompt "RUN TIME?".

If the run time is invalid, the message "***INVALID RUN TIME***REENTER" will be displayed and the user must reenter the run time.

NCC has set up a system of priority codes which classify runs and enable the system to operate more efficiently. These codes change from time to time and therefore are not listed here.

A valid priority of one alphabetic character must be entered by the user. The priority will be entered following the instruction "ENTER RUN PRIORITY CODE" and the prompt "PRIORITY?". If a valid priority code is not entered the message "***INVALID PRIORITY. REENTER.***" will be displayed and the user must reenter priority.

The user must specify the terminal identifier - a location to which all of the remote batch output will be routed. This location can be a low-speed, medium-speed or high-speed terminal. Terminal id is a maximum of six characters long. If no terminal id is entered or the user enters PR the output is routed to the central UNIVAC 1110 site. Terminal id will be entered after the message "ENTER IDENTIFICATION NUMBER FOR THE TERMINAL TO WHICH THE PRINT SHOULD BE ROUTED" ahd prompt "TERMINAL ID?".

The user may specify the number of copies of the output he desires for each run. A maximum of sixty-three copies may be requested. If no number is entered one copy only will be produced. The number of copies will be entered after the message "ENTER NUMBER OF COPIES OF OUTPUT DESIRED" and the prompt "COPIES?".

If number of copies is not within the acceptable range the message "***INVALID NO. COPIES***REENTER" will be displayed and the user must reenter another number.

As each of these five entries is made, the subprogram will display them to the user. Upon completion of all entries, the subprogram will print a summary of run card and sym card information and the user can elect to accept or change this information. If accepted, the user will then be asked to submit or cancel the remote batch run.

As each of the five RUN card and SYM card entries are made, the subprogram will display them to the user. Upon completion of all variable entries, the subprogram will print a summary of run card and sym card information and the user can elect to accept or change this information. If accepted, the user will then be asked to submit or cancel the remote batch run.

After each selected batch run has been submitted or cancelled, RUN card/ SYM card and program control information (if any) will be requested for the next report selected until all specified reports have been submitted or disapproved (cancelled) by the user.

After all the reports specified have been submitted or cancelled the runs will be initiated and scheduled for processing in sequence. The user will be asked:

DO YOU WANT TO CONSTRUCT ANY MORE NEDS REMOTE BATCH RUNS IN THIS FUNCTION? (YES OR NO). If YES is entered the subprogram will return to the beginning and entirely new runs may then be constructed as before. If NO is entered control will be returned to the NTS master program.

The batch runs will be run in the sequence of request by the user. Prior to starting any of the batch jobs the user will be asked if he wishes to delete the selected catalogued file(s). If he responds yes, the last run after successful completion of all other runs, will delete the selected catalogued file(s).

An example of a batch initiation run is given later in this section.

NTS EXAMPLE RUNS

Example 1: NEDS Remote Batch Function, Runs for Missing Data Items Report, Condensed and Full Point Source Listings are submitted.

```
WNE206
NEDS TERMINAL SYSTEM (V.1)  DATE: 10/26/78      TIME: 10:45:52

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION ?
NB

NEDS REMOTE BATCH FUNCTION

COMMAND LIST---YES OR NO?

YES

VALID COMMANDS ARE :
REPORT=??,??,...??    - REPORTS WANTED.  ?? REPRESENTS THE REPORT CODE.
                        ONE TO SIX CODES, WITHOUT DUPLICATION & IN ANY
                        ORDER, MAY BE ENTERED.  VALID REPORT CODES ARE:
                          MD = MISSING DATA ITEMS REPORT
                          CP = CONDENSED POINT SOURCE LISTING
                          FP = FULL POINT SOURCE LISTING
                          PN = PLANT NAME LIST
                          PE = POTENTIAL  EMISSIONS REPORT
                          SS = SCC SUMMARY REPORT

POLL=?                - POLLUTANT CODE.  A NUMBER SPECIFYING ONE OF FIVE
                        POLLUTANTS TO BE SELECTED.  (NO VALUE SPECIFIED
                        MEANS 'SELECT ALL') VALID POLLUTANT CODES ARE:
                          1 = PARTICULATE
                          2 = SULFUR DIOXIDE
                          3 = NITROGEN OXIDE
                          4 = HYDROCARBONS
                          5 = CARBON MONOXIDE
```

Example 1 (continued)

MIN=?????? - MINIMUM VALUE. A SIX DIGIT NUMBER SPECIFYING A MINIMUM VALUE TO BE SELECTED OF THE ABOVE POLLUTANT. (IF NO VALUE SPECIFIED, ZERO IS ASSUMED) NUMBER MUST BE RIGHT JUSTIFIED.

SORT=??,??,...?? - SORT SEQUENCE. A MAXIMUM OF TWENTY SORT OPTIONS ARE AVAILABLE. ORDER OF ENTRY IS HIERARCHICAL BROAD TO SPECIFIC. DEFAULT SORT SEQUENCE IS STATE,COUNTY,PLANT NUMBER,POINT NUMBER,SCC. VALID SORT CODES ARE SHOWN BELOW:

01 = STATE
02 = COUNTY
03 = PLANT NUMBER
04 = POINT NUMBER
05 = SCC
06 = OWNERSHIP
07 = SIC
08 = ESTIMATION METHOD
09 = AQCR
10 = PLANT NAME
11 = POLLUTANT VALUE
12 = YEAR OF RECORD
13 = CONTROL EQUIPMENT
14 = CONTROL EFFICIENCY
15 = SULFUR CONTENT
16 = ASH CONTENT
17 = CITY
18 = UTM COORDINATES
19 = OPERATING RATE
20 = CONFIDENTIALITY

CONF=... - CONFIDENTIALITY CODE. IF INCORRECTLY ENTERED OR OMITTED, ONLY NON-CONFIDENTIAL DATA WILL BE REPORTED.

SIG=? - THE NUMBER OF SIGNIFICANT DIGITS TO BE USED FOR REPORTED DATA. (NO VALUE SPECIFIED = 3)

UNITS=? - THE DIGIT 1 IF METRIC UNITS ARE DESIRED FOR REPORTED DATA. (STANDARD IS ENGLISH)

SELECT - SIGNIFIES THAT CARD IMAGE DATA FOR THE STANDARD NEDS SELECT CARD(S) WILL NOW BE ENTERED. FIELDS NOT APPLYING MUST BE ASTERISK FILLED. SELECT CARD DATA MUST BE ENTERED IN THE FOLLOWING ORDER:

Example 1 (continued)

```
                    STATE CODE - 2 CHARACTERS.
                    COUNTY CODE - 4 CHARACTERS.
                    PLANT CODE - 4 CHARACTERS.
                    POINT CODE - 2 CHARACTERS.
                    SCC - 8 CHARS.  SOURCE CLASSIFICATION CODE CON-
                              SISTS OF 4 SUBFIELDS ANY ONE OF WHICH MAY
                              BE SPECIFIED OR ASTERISK-FILLED.
                              (SEE 'GUIDE FOR COMPILING A COMPREHENSIVE
                              EMISSION INVENTORY' EPA PUB. APTD-1135)

                    OWNERSHIP    - 1 CHARACTER:
                                   P = PRIVATE
                                   L = LOCAL GOVERNMENT
                                   S = STATE GOVERNMENT
                                   F = FEDERAL GOVERNMENT
                                   U = UTILITY
                    SIC - 4 CHARS. STANDARD INDUSTRIAL CLASSIFICATION
                              CODE. (SEE 'STANDARD INDUSTRIAL CLASSIFICA-
                              TION MANUAL' OFFICE OF MANPOWER & BUDGET)
                    EST. METHOD - 1 CHARACTER. ESTIMATION METHOD:
                                   0 = NOT APPLICABLE
                                   1 = STACK TESTS OR OTHER
                                       EMISSIONS MEASUREMENT
                                   2 = MATERIAL BALANCE
                                   3 = CALCULATED USING EMISSIONS
                                   4 = GUESS
                                   5 = EMISSION FACTOR USED TO
                                       CALCULATE DIFFERS FROM
                                       OFFICIAL EPA FACTOR
                                   6 = NEW FACILITY, NOT OPERATIONAL
                                   7 = CLOSED FACILITY
                         AQCR - 3 CHARS. AIR QUALITY CONTROL REGION.
                               (SEE 'GUIDE FOR COMPILING A COMPREHENSIVE
                               EMISSION INVENTORY' EPA PUB. APTD-1135)
HELP                - WILL PRINT THIS LIST OF VALID COMMANDS

END                 - ENDS COMMAND ENTRIES. ALL DESIRED COMMAND DATA
                    HAS BEEN ENTERED.
```

Example 1 (continued)

```
THE ENTIRE COMMAND CAN BE ENTERED OR THE COMMAND CAN BE ABBREVIATED TO
THE FIRST TWO LETTERS OF THE COMMAND.  FOR EXAMPLE, UNITS=1 & UN=1 BOTH
INDICATE METRIC UNITS ARE DESIRED.

  IF YOU WISH TO USE A PREVIOUSLY WRITTEN NEDS-SUBFILE AS INPUT
  FOR YOUR SPECIFIED REPORTS ENTER YES.  OTHERWISE ENTER NO.
  YES OR NO?
  NO

  ENTER THE TAPE REEL NUMBER(S) WHICH
  WILL CONTAIN THE NEDS-SUBFILE......
  (MAXIMUM = 6, SEPARATED BY SLASHES)
  105432

  REEL NUMBER(S) = 105432
  START ENTERING COMMANDS

         COMMAND?
         RE=MD,CP,FP

         REPORT IS: MD,CP,FP

         COMMAND?
         POLL=1

         POLLUTANT = 1
         COMMAND?
         MIN=100

         *** INVALID MINIMUM VALUE -COMMAND IGNORED
         COMMAND?
         MIN=000100

         MINIMUM VALUE = 000100
         COMMAND?
         SIG=2

         SIGNIFICANT DIG = 2
         COMMAND?
         SELECT
```

Example 1 (continued)

```
  ENTER 29 CHARACTER SELECT CARD IMAGE,X,OR TERM.
             PP
   SSCCCCPPPPTISSSSSSSSOSSSSEAAA,X,OR TERM?
  01***************************

  SELECT CARD IS: 01***************************

   SSCCCCPPPPTISSSSSSSSOSSSSEAAA,X,OR TERM?
  TERM

  COMMAND?
  END


  REPORT(S) SPECIFIED:
  MISSING DATA ITEMS REPORT
  CONDENSED POINT SOURCE LISTING
  FULL POINT SOURCE LISTING

  CONTROL CARD DATA:
  SORT SEQUENCE IS:

*** NO SORT CODES SPECIFIED-- DEFAULT SORT SEQUENCE USED ***
  STATE CODE (ASCENDING)
  COUNTY CODE (ASCENDING)
  PLANT CODE (ASCENDING)
  POINT CODE (ASCENDING)
  SOURCE CLASSIFICATION CODE (ASCENDING)
POLLUTANT = PARTICULATE
MINIMUM VALUE = 000100
SIGNIFICANT DIGITS = 2

SELECT CARDS ENTERED:

ST CNTY PLNT PT ....SCC.... O SIC  E AQCR
01 **** **** ** * ** *** ** * **** * ***
```

Example 1 (continued)

```
ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR.
RUN TIME?

10

RUN TIME = 10

ENTER YOUR RUN PRIORITY CODE (1 CHAR.)
PRIORITY?

D

PRIORITY = D

ENTER IDENTIFICATION NUMBER FOR THE TERMINAL
TO WHICH THE PRINT SHOULD BE ROUTED.
TERMINAL ID?

FD05PR

TERMINAL ID = FD05PR

ENTER NUMBER OF COPIES OF OUTPUT DESIRED (1-63)
COPIES?

1

 NO. COPIES = 01

THE VARIABLE INFORMATION FOR THE MISSING DATA ITEMS REPORT
AS SPECIFIED IS:

RUN CARD=
PRIORITY:D RUNID:04ATKA ACCT:45044NEDV    PROJ:NEDV          RUNTIME:10
```

Example 1 (continued)

```
COMMAND DATA CORRECT? YES OR NO?
YES

MISSING DATA ITEMS REPORT

SUMM. CODE LIST-- YES OR NO?
YES

VALID SUMMARIZATION CODES ARE: 1 = NATIONAL
                               2 = STATE
                               3 = COUNTY (STATE/COUNTY)
                               4 = AQCR (NOT VALID FOR MDI REPORT)
                               5 = STATE/AQCR
                               6 =  PLANT (STATE/COUNTYPLANT)
                               7 = POINT (STATE/COUNTY/PLANT/POINT

ENTER SUMMARIZATION TYPE CODE (1 CHAR.)
TYPE?
2

 SUMMARY TYPE = 2
CORRECT (YES OR NO?)
YES

ENTER YOUR RUNID (MAX. 6 CHAR.)
RUNID?

04ATKA

RUNID = 04ATKA
```

Example 1 (continued)

```
TERMINAL ID = FD05PR
NO. COPIES  = 01

DO YOU WANT TO CHANGE THE RUN CARD/PRINT INFO?
( YES OR NO )

NO

DO YOU WANT TO SUBMIT THE RUN AS SPECIFIED?
( YES OR NO )

YES

CONDENSED POINT SOURCE LISTING

ENTER YOUR RUNID (MAX. 6 CHAR.)
RUNID?

04ATKB

RUNID = 04ATKB

ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR.
RUN TIME?

5

 RUN TIME = 5

ENTER YOUR RUN PRIORITY CODE (1 CHAR.)
PRIORITY?

D

 PRIORITY = D

ENTER IDENTIFICATION NUMBER FOR THE TERMINAL
TO WHICH THE PRINT SHOULD BE ROUTED.
TERMINAL ID?
```

Example 1 (continued)

```
FD05PR

TERMINAL ID = FD05PR

ENTER NUMBER OF COPIES OF OUTPUT DESIRED (1-63)
COPIES?

1

 NO. COPIES = 01

THE VARIABLE INFORMATION FOR THE CONDENSED POINT SOURCE LISTING
AS SPECIFIED IS:

RUN CARD=
PRIORITY:D RUNID:04ATKB ACCT:45044NEDV    PROJ:NEDV          RUNTIME:5

TERMINAL ID = FD05PR
NO. COPIES  = 01

DO YOU WANT TO CHANGE THE RUN CARD/PRINT INFO?
( YES OR NO )

NO

DO YOU WANT TO SUBMIT THE RUN AS SPECIFIED?
( YES OR NO )

YES

FULL POINT SOURCE LISTING

ENTER YOUR RUNID (MAX. 6 CHAR.)
RUNID?

04ATKC

RUNID = 04ATKC

ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR.
RUN TIME?
```

Example 1 (continued)

```
10

RUN TIME = 10

ENTER YOUR RUN PRIORITY CODE (1 CHAR.)
PRIORITY?

D

 PRIORITY = D

ENTER IDENTIFICATION NUMBER FOR THE TERMINAL
TO WHICH THE PRINT SHOULD BE ROUTED.
TERMINAL ID?

FD05PR

TERMINAL ID = FD05PR

ENTER NUMBER OF COPIES OF OUTPUT DESIRED (1-63)
COPIES?

1

NO. COPIES = 01

THE VARIABLE INFORMATION FOR THE FULL POINT SOURCE LISTING
AS SPECIFIED IS:

RUN CARD=
PRIORITY:D RUNID:04AIKC ACCT:45044NEDV    PROJ:NEDV           RUNTIME:10

TERMINAL ID = FD05PR
NO. COPIES  = 01
```

Example 1 (continued)

```
DO YOU WANT TO CHANGE THE RUN CARD/PRINT INFO?
( YES OR NO )
NO

DO YOU WANT TO SUBMIT THE RUN AS SPECIFIED?
( YES OR NO )
YES

DO YOU WANT TO SUBMIT ANY MORE BATCH RUNS?
NO

ENTER NEXT FUNCTION YOU WISH TO ACCESS
FUNCTION ?
END

END SESSION
```

Example 2: NEDS Emission Summary Listing. Run for a county summary report is submitted.

```
ONE206
NEDS TERMINAL SYSTEM (V.1)  DATE: 10/26/78      TIME: 14:36:44

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION ?
ES

NEDS EMISSION SUMMARY LISTING

COMMAND LIST---YES OR NO?

YES

VALID COMMANDS ARE:
'REPORT=?' - REPORT WANTED.  ?   REPRESENTS THE NUMBER OF THE
             REPORT WANTED. THE NUMBERS & CORRESPONDING REPORTS ARE:
              1 - STATE SUMMARY REPORT
              2 - COUNTY SUMMARY REPORT
              3 - STATE BY COUNTY SUMMARY REPORT
              4 - EPA REGION SUMMARY REPORT
              5 - AQCR SUMMARY REPORT
              6 - NATIONAL SUMMARY REPORT
'END'      - SIGNALS END OF REQUEST SPECIFICATIONS
THE ENTIRE COMMAND CAN BE ENTERED OR THE COMMAND CAN BE ABBREVIATED
TO THE FIRST TWO LETTERS OF THE COMMAND. FOR EXAMPLE, REPORT=1 &
RE=1 BOTH INDICATE A STATE REPORT IS DESIRED.
START ENTERING COMMANDS
```

Example 2 (continued)

```
COMMAND?

RE=2

ENTER 6 CHARACTER STATE/COUNTY CODE,X,OR END

SC,X,OR END?

010240

STATE/COUNTY=010240

SC,X,OR END?

010260

STATE/COUNTY=010260

SC,X,OR END?

END

CONTROL INFORMATION AS SPECIFIED IS:
REPORT TYPE=02

CONTROL CARDS ENTERED-

ST CNTY AQCR REGION

01 0240 999  99

01 0260 999  99

DO YOU WANT TO SUBMIT THE CONTROL INFORMATION
AS SPECIFIED  ( YES OR NO )

YES
```

Example 2 (continued)

```
ENTER YOUR RUNID (MAX. 6 CHAR.)
RUNID?

 04ATKA

RUNID = 04ATKA

ENTER YOUR RUN TIME (MINUTES) MAX. 3 CHAR.
RUN TIME?

 5

 RUN TIME = 5

ENTER YOUR RUN PRIORITY CODE (1 CHAR.)
PRIORITY?

 D

 PRIORITY = D

ENTER IDENTIFICATION NUMBER FOR THE TERMINAL
TO WHICH THE PRINT SHOULD BE ROUTED.
TERMINAL ID?

FD05PR

TERMINAL ID = FD05PR

ENTER NUMBER OF COPIES OF OUTPUT DESIRED (1-63)
COPIES?

1

 NO. COPIES = 01

RUN CARD & PRINT INFORMATION AS SPECIFIED IS:
```

Example 2 (continued)

```
RUN CARD=
PRIORITY:D RUNID:04ATKA ACCT:45044NEDV    PROJ:NEDV          RUNTIME:5

TERMINAL ID = FD05PR
NO. COPIES  = 01

DO YOU WANT TO CHANGE THE RUN CARD/PRINT INFO?
( YES OR NO )

NO

DO YOU WANT TO SUBMIT THE RUN AS SPECIFIED?
( YES OR NO )

YES

JOB WILL BE SUBMITTED UPON SUCCESSFUL COMPLETION OF THIS PROCEDURE

PLEASE CHOOSE NEXT FUNCTION YOU WISH TO ACCESS.
FUNCTION ?
END

END SESSION
```

Example 3: NEDS Quick Look. Point source data are selected, the File selection criteria list is reviewed, a one-line data selection report is generated and a file of selected user records is cataloged.

```
QNE206
NEDS TERMINAL SYSTEM (V.1)  DATE: 10/27/78      TIME: 08:19:17

ARE YOU USING A CRT TERMINAL? ( YES OR NO )
YES
DO YOU WISH FOR INSTRUCTIONS? ( YES OR NO )
NO

FUNCTION ?
NI
   NEDS QUICK LOOK

DO YOU NEED SYSTEM USE INFORMATION ?
  (Y OR N)
N
  SELECT POINT SOURCE, AREA SOURCE  OR RETURN TO NTS MASTER
  ( PS, AS, OR NTS )
PS

DO YOU WISH TO SEE FIELD CODE DESCRIPTION TABLE?
  (Y OR N)
Y
 01  STATE
 02  COUNTY CODE
 03  PLANT IDENTIFICATION NUMBER
 04  POINT IDENTIFICATION NUMBER
 05  SOURCE CLASSIFICATION NUMBER
 06  AQCR NUMBER
 07  YEAR PLANT INFO LAST UPDATED (CARD 1)
 08  CITY CODE
 09  UTM ZONE
 10  ESTABLISHMENT NAME AND ADDRESS
 11  PERSONAL CONTACT
```

Example 3 (continued)

```
12  OWNERSHIP CODE
13  YEAR POINT INFO LAST UPDATED (CARD 2)
14  STANDARD INDUSTRIAL CLASSIFICATION CODE
15  IPP PROCESS CODE
16  HORIZONTAL UTM COORDINATE (KM)
17  VERTICAL UTM COORDINATE (KME
18  STACK HEIGHT (FT)
19  STACK DIAMETER (FT)
20  STACK TEMPERATURE (DEG F)
21  FLOW RATE (FT 3/MIN)
22  PLUME HEIGHT
23  FIRST POINT WITH COMMON STACK CODE
24  LAST POINT WITH COMMON STACK CODE
25  YEAR CONTROL INFO LAST UPDATED (CARD 3)
26  BOILER DESIGN CAPACITY (10 6 BTU/HR)
27  PRIMARY CONTROL EQUIPMENT PARTICULATES
28  SECONDARY CONTROL EQUIPMENT PARTICULATES
29  PRIMARY CONTROL EQUIPMENT SO2
30  SECONDARY CONTROL EQUIPMENT SO2
31  PRIMARY CONTROL EQUIPMENT NOX
32  SECONDARY CONTROL EQUIPMENT NOX
33  PRIMARY CONTROL EQUIPMENT HC
34  SECONDARY CONTROL EQUIPMENT HC
35  PRIMARY CONTROL EQUIPMENT CO
36  SECONDARY CONTROL EQUIPMENT CO
37  EST CONTROL EFFICIENCY PARTICULATE (%)
38  EST CONTROL EFFICIENCY SO2 (%)
39  EST CONTROL EFFICIENCY NOX (%)
40  EST CONTROL EFFICIENCY HC (%)
41  EST CONTROL EFFICIENCY CO (%)
42  YEAR PRODUCTION INFO LAST UPDATED(CARD4)
43  % ANNUAL THRU PUT (DEC-FEB)
44  % ANNUAL THRU PUT (MAR-MAY)
45  % ANNUAL THRU PUT (JUN-AUG)
46  % ANNUAL THRU PUT (SEP-NOV)
```

Example 3 (continued)

```
47  NORMAL OPERATING HOURS PER DAY
48  NORMAL OPERATING DAYS PER WEEK
49  NORMAL OPERATING WEEKS PER YEAR
50  EST EMISSIONS PARTICULATES (TONS/YEAR)
51  EST EMISSIONS SO2 (TONS/YEAR)
52  EST EMISSIONS NOX (TONS/YEAR)
53  EST EMISSIONS HC (TONS/YEAR)
54  EST EMISSIONS CO (TONS/YEAR)
55  ESTIMATION METHOD PARTICULATE
56  ESTIMATION METHOD SO
57  ESTIMATION METHOD NO
58  ESTIMATION METHOD HC
59  ESTIMATION METHOD CO
60  % SPACE HEAT
61  YEAR REGULATORY INFO LAST UPDATED(CARS5)
62  ALLOWABLE EMISSIONS PARTICULATE(TONS/YR)
63  ALLOWABLE EMISSIONS SO (TONS/YR)
64  ALLOWABLE EMISSIONS NO (TONS/YR)
65  ALLOWABLE EMISSIONS HC (TONS/YR)
66  ALLOWABLE EMISSIONS CO (TONS/YR)
67  COMPLIANCE STATUS
68  COMPLIANCE SCHEDULE - YEAR
69  COMPLIANCE SCHEDULE - MONTH
70  COMPLIANCE STATUS UPDATE - YEAR
71  COMPLIANCE STATUS UPDATE - MONTH
72  COMPLIANCE STATUS UPDATE - DAY
73  EMERGENCY CONTROL ACT PROGRAM STATUS
74  CONTROL REGULATION NUMBER 1
75  CONTROL REGULATION NUMBER 2
76  CONTROL REGULATION NUMBER 3
77  YEAR EMISSIONS INFO LAST UPDATED(CARD6)
78  FUEL,PROCESS,SOLID WASTE OPERATING RATE
79  MAXIMUM DESIGN RATE
80  % SULFUR CONTENT
81  %ASH CONTENT
82  HEAT CONTENT (10 L BTU)
```

Example 3 (continued)

```
83  SOURCE CODE
84  CONFIDENTIALITY OF DATA
85  PARTICULATE EMISSIONS (TONS/YEAR)
86  SO2 EMISSIONS (TONS/YEAR)
87  NOX EMISSIONS (TONS/YEAR)
88  HC EMISSIONS (TONS/YEAR)
89  CO EMISSIONS (TONS/YEAR)
ENTER SELECTION ELEMENT
  (  OR HELP OR FIELD-CD OR END OR NONE  )
01 EQ 01
MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
   (  OR HELP OR FIELD-CD OR END OR NONE  )
HELP
A VALID SELECTION ELEMENT ENTRY CONSISTS OF A FIELD CODE,
QUALIFIER, FIELD VALUE, AND CONNECTOR (CONNECTOR OPTIONAL).
-- FIELD CODE IS THE NUMBER CORRESPONDING TO THE REQUIRED
   POINT SOURCE FIELD  ( 01 THRU 89 ).
-- QUALIFIER IS USED TO SHOW THE RELATIONSHIP BETWEEN THE
   FIELD VALUE AND THE FILE DATA TO BE EXTRACTED
   ( LT  GT  EQ  ALL  )
-- FIELD VALUE (S) IS THE ACTUAL VALUE(S) USED IN RECORD
   SELECTION--CAN BE UP TO SIX VALUES ON EXPLICIT SELECTION
-- CONNECTOR IS USED TO CONNECT TWO SETS OF QUALIFIER AND
   FIELD VALUE IN ORDER TO CREATE A VALUE RANGE AND TO
   STRING MULTIPLE EXPLICIT VALUES. (AND OR)
EXAMPLES
        01  EQ  15
        01  EQ  15 OR 16 OR 17
        01  GT  15 AND LT 21
        01  LT  05
        01  GT  48
        25  ALL
ENTER SELECTION ELEMENT
  (  OR HELP OR FIELD-CD OR END OR NONE  )
02 EQ 0240
```

Example 3 (continued)

```
MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
DISPLAY
  ELEMENTS OF CURRENT SELECTION
  ELEMENT NUMBER  001
01 EQ 01
  ELEMENT NUMBER  002
02 EQ 0240

MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
  (  OR HELP OR FIELD-CD OR END OR NONE  )
03 GT 0010
MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
N
 ARE THERE MORE SELECTION ENTRIES ?
 ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
  (  OR HELP OR FIELD-CD OR END OR NONE  )
01 EQ 01
MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
  (  OR HELP OR FIELD-CD OR END OR NONE  )
02 EQ 0240
MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
  (  OR HELP OR FIELD-CD OR END OR NONE  )
03 LT 0010
MORE ELEMENTS IN CURRENT SELECTION ?
 ( Y OR N OR DISPLAY )
N
 ARE THERE MORE SELECTION ENTRIES ?
 ( Y OR N OR DISPLAY )
DISPLAY
```

Example 3 (continued)

```
   F I L E   S E L E C T I O N   C R I T E R I A   L I S T
                                                 *     NUMBER OF     *
   * * * *   SELECTION CRITERIA   * * * *        *  RECORDS SELECTED *

     SELECTION NUMBER 001                               000000
  ELEMENTS
01 EQ 01
02 EQ 0240
03 GT 0010

     SELECTION NUMBER 002                               000000
  ELEMENTS
01 EQ 01
02 EQ 0260
03 LT 0010


ARE THERE MORE SELECTION ENTRIES ?
 ( Y OR N OR DISPLAY )
N
 PROCESSING FILE SELECTION
SELECT FROM THE FOLLOWING OPTIONS

1. TERMINATE RUN (RETURN TO NE206)
2. REDO SELECTION PARAMETERS
3. REVIEW FILE SELECTION CRITERIA LIST
4. BATCH INITIATION PROCESSING
5. CREATE DATA SELECTION REPORT
6. CATALOG SELECTED USER FILE RECORDS

 ENTER NUMBER OF OPTION SELECTED
3
```

Example 3 (continued)

```
         F I L E   S E L E C T I O N   C R I T E R I A   L I S T
                                                   *   NUMBER OF      *
         * * * *  SELECTION CRITERIA  * * * *      *  RECORDS SELECTED *

     SELECTION NUMBER 001                              000001
   ELEMENTS
 01 EQ 01
 02 EQ 0240
 03 GT 0010

     SELECTION NUMBER 002                              000007
   ELEMENTS
 01 EQ 01
 02 EQ 0260
 03 LT 0010


SELECT FROM THE FOLLOWING OPTIONS

1. TERMINATE RUN (RETURN TO NE206)
2. REDO SELECTION PARAMETERS
3. REVIEW FILE SELECTION CRITERIA LIST
4. BATCH INITIATION PROCESSING
5. CREATE DATA SELECTION REPORT
6. CATALOG SELECTED USER FILE RECORDS

 ENTER NUMBER OF OPTION SELECTED
5

 DO YOU WISH TO REVIEW REPORT INTERACTIVELY?
NUMBER OF REPORT LINES = 000008
  (Y OR N)
Y
 ENTER FIELD CODE OF FIELDS TO BE PRINTED (SEPARATE WITH COMMAS)
01,02,03,04,05,10
DO YOU WISH TO SORT REPORT OUTPUT?
SEQUENCE IS CURRENTLY - STATE, COUNTY, PLANT, POINT, SCC
  (Y OR N)
N
```

Example 3 (continued)

```
                    N E D S    U S E R    P O I N T    F I L E
                 D A T A    S E L E C T I O N    R E P O R T
DATE: 10/27/78                                                   PAGE:

 ST   CNTY   PLANT   PT      SCC         NAME-ADDRESS

 01   0240    6001   01   30501199   PRATTVILLE READY MIX
 01   0260    0004   01   30700601   REICHHOLD CHEM INC N
 01   0260    0005   01   30500201   RADCLIFF MATERIALS I
 01   0260    0007   01   10200502   ALPINE LABS INC BOX
 01   0260    0007   02   30199999   ALPINE LABS INC BOX
 01   0260    0009   02   30200603   GOLD KIST INC E FIRS
 01   0260    0009   03   30200601   GOLD KIST INC E FIRS
 01   0260    0009   04   30200601   GOLD KIST INC E FIRS


DO YOU WISH TO CREATE ANOTHER REPORT ?,
  (Y OR N)
N
 SELECT FROM THE FOLLOWING OPTIONS

1. TERMINATE RUN (RETURN TO NE208)
2. REDO SELECTION PARAMETERS
3. REVIEW FILE SELECTION CRITERIA LIST
4. BATCH INITIATION PROCESSING
5. CREATE DATA SELECTION REPORT
6. CATALOG SELECTED USER FILE RECORDS
```

Example 3 (continued)

```
 ENTER NUMBER OF OPTION SELECTED
2
 ENTER SELECTION ELEMENT
  (   OR HELP OR FIELD-CD OR END OR NONE   )
01 EQ 01
 MORE ELEMENTS IN CURRENT SELECTION ?
  ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
  (   OR HELP OR FIELD-CD OR END OR NONE   )
06 EQ 002
 MORE ELEMENTS IN CURRENT SELECTION ?
  ( Y OR N OR DISPLAY )
Y
 ENTER SELECTION ELEMENT
  (   OR HELP OR FIELD-CD OR END OR NONE   )
NONE
 MORE ELEMENTS IN CURRENT SELECTION ?
  ( Y OR N OR DISPLAY )
N
 ARE THERE MORE SELECTION ENTRIES ?
  ( Y OR N OR DISPLAY )
N
 PROCESSING FILE SELECTION
 SELECT FROM THE FOLLOWING OPTIONS

 1. TERMINATE RUN (RETURN TO NE206)
 2. REDO SELECTION PARAMETERS
 3. REVIEW FILE SELECTION CRITERIA LIST
 4. BATCH INITIATION PROCESSING
 5. CREATE DATA SELECTION REPORT
 6. CATALOG SELECTED USER FILE RECORDS
```

Example 3 (continued)

```
 ENTER NUMBER OF OPTION SELECTED
6
 PERMANENT FILE OF SELECTED RECORDS HAS BEEN CREATED
FILE NAME IS F01027090002
QUALIFIER IS  NEDV
  NEDS QUICK LOOK

DO YOU NEED SYSTEM USE INFORMATION ?
  (Y OR N)
N
 SELECT POINT SOURCE, AREA SOURCE  OR RETURN TO NTS MASTER
 ( PS, AS, OR NTS )
NTS
END OF QUICK LOOK  - NI FUNCTION
FUNCTION ?
END

END SESSION
```

The Air Quality Data publications are routine publications of ambient air quality information. They are derived entirely from the SAROAD data base. The publications included in this category are:

Reports for Criteria Pollutants - Reports of air quality data, for quarter or full year. (Produced by LINOTRON).

Directory of Air Monitoring Sites - Annually updated directory of monitoring sites, giving site location agency and type.

Noncriteria Pollutants - These reports contain data for the metals and other components that are analyzed from the Hi-Vol filter. These reports are not published annually but contain several years of data beginning with 1957. The two current publications include data for years 1957-70 and 1971-75.

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Routine Publications	**SECTION** 5	**CHAPTER** 2	**SUBJECT** 1
NATIONAL AIR DATA BRANCH	**CHAPTER** Air Quality Data	**DATE**		**PAGE**
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT** Reports for Criteria Pollutants	3/1/79 Update III-2		1

General Description

These reports contain summary statistics for the criteria pollutants (particulate, carbon monoxide, sulfur dioxide, nitrogen dioxide, hydrocarbons, and ozone) summarized on a quarterly basis for each calendar quarter and annually for each calendar year. These reports are produced on a standard schedule based on the availability of the data from State agencies. The reports are produced by a computerized process that sets type called 'LINOTRON'.

For each site and criteria pollutant that has been reported to SAROAD, the report contains the following information:

a. State name
b. AQCR number
c. Site location name (city or county)
d. Site number
e. Agency/Project codes
f. Number of observations
g. Minimum value reported
h. Percentiles (10, 30, 50, 70, 90, 95, 99)
i. Maximum value observed
j. Arithmetic mean
k. Arithmetic standard deviation
l. Geometric mean
m. Geometric standard deviation

The means and standard deviations are only printed for data that meet the summary criteria as defined in Section 2.3.0.

The Reports are organized according to the following hierarchy:

a. Pollutant type
b. Method of collection and analysis
c. Time interval
d. State
e. AQCR number
f. Site location
g. Site number
h. Agency type
i. Project classification type

The above describes the formats for the quarterly reports. The annual report contains two parts: (1) Part One - the format as described above and (2) Part Two - a format that contains some of the above information as well as additional data such as:

a. Number of violations of air quality standards
b. First and Second maximum values observed
c. Site address
d. County name in which the site is located.

Sample Reports

Figure 5.2.1.a is an example page from a quarterly report. Figure 5.2.1.b is an example page from Part I of an annual report and Figure 5.2.1.c is an example page from Part II.

PARTICULATE, micrograms per cubic meter (25 C)
HI-VOL GRAVIMETRIC, 24 hours
1977 Second Quarter

Site location	Site No.	Ag/ proj.	No. obs.	Min. obs.	Percentiles							Max. obs.	Arithmetic		Geometric	
					10	30	50	70	90	95	99		Mean	Std. dev.	Mean	Std. dev.
ALABAMA																
001 Clarke Co	001	F01	2	33.	33.	33.	33.	111.	111.	111.	111.	111.				
001 Demopolis	002	F01	9	44.	44.	51.	85.	106.	128.	128.	128.	128.	82.	32.50	75.62	1.52
001 Evergreen	001	F01	13	26.	26.	34.	40.	49.	56.	77.	77.	77.	43.	13.67	40.97	1.35
001 Selma	002	F01	7	43.	43.	68.	72.	77.	160.	160.	160.	160.	80.	38.46	73.43	1.52
002 Montgomery	007	F01	8	52.	52.	63.	80.	96.	111.	111.	111.	111.				
	008	F01	8	33.	33.	45.	57.	89.	123.	123.	123.	123.	68.	33.09	61.14	1.63
002 Opelika	001	F01	13	23.	38.	50.	58.	81.	102.	121.	121.	121.	65.	26.77	60.12	1.54
002 Phenix City	001	F01	11	33.	41.	45.	59.	99.	126.	137.	137.	137.	74.	37.47	66.02	1.67
002 Troy	002	F01	10	28.	28.	34.	48.	62.	71.	85.	85.	85.	52.	19.42	48.46	1.48
003 Alexander City	001	F01	7	31.	31.	38.	49.	51.	59.	59.	59.	59.	45.	10.05	44.29	1.26
003 Anniston	001	F01	13	52.	62.	63.	77.	104.	231.	1825.	1825.	1825.	224.	483.32	104.98	2.56
	002	F01	12	36.	39.	48.	69.	100.	104.	104.	104.	104.	72.	26.47	67.62	1.49
003 Childersburg	001	F01	12	37.	40.	41.	49.	63.	81.	105.	105.	105.	56.	20.69	53.43	1.39
003 Gadsden	002	F01	6	29.	29.	31.	38.	49.	144.	144.	144.	144.	56.	43.85	46.87	1.80
	003	F02	12	40.	51.	65.	103.	126.	148.	160.	160.	160.	99.	41.75	90.58	1.60
	004	F02	3	197.	197.	197.	225.	226.	226.	226.	226.	226.				
003 Sylacauga	001	F01	9	30.	30.	59.	68.	73.	92.	92.	92.	92.	65.	19.44	62.43	1.41
003 Talladega	001	F01	13	41.	52.	54.	78.	97.	116.	119.	119.	119.	78.	25.67	73.92	1.41
004 Bessemer	001	G01	73	37.	59.	80.	94.	129.	178.	191.	226.	226.	109.	45.71	100.18	1.52
004 Birmingham	005	G02	80	45.	77.	108.	136.	183.	317.	353.	441.	441.	169.	94.49	146.51	1.70
	010	G01	13	48.	57.	58.	85.	100.	123.	130.	130.	130.	84.	26.01	80.43	1.37
	011	G01	15	70.	77.	91.	113.	128.	245.	262.	262.	262.	128.	58.28	117.79	1.49
	012	G01	86	41.	62.	87.	98.	112.	145.	167.	200.	200.	103.	33.15	97.58	1.39
	019	G01	73	50.	89.	129.	156.	207.	278.	307.	341.	341.	171.	71.45	156.20	1.55
	020	G02	45	27.	47.	79.	95.	118.	178.	211.	285.	285.	107.	53.34	95.13	1.64
	021	G02	61	47.	55.	69.	85.	102.	135.	147.	238.	238.	91.	35.07	85.89	1.42
004 Center Point	002	G01	16	40.	48.	57.	62.	79.	87.	110.	110.	110.	68.	17.91	65.36	1.30
004 Clanton	002	F03	10	46.	46.	51.	66.	84.	105.	227.	227.	227.	83.	53.88	73.63	1.61
004 Fairfield	003	G02	72	43.	55.	72.	86.	110.	136.	150.	209.	209.	94.	32.43	88.85	1.41
004 Hueytown	002	G02	14	38.	43.	52.	58.	92.	101.	125.	125.	125.	70.	26.78	65.56	1.45
004 Irondale	002	G01	1	83.	83.	83.	83.	83.	83.	83.	83.	83.				
004 Jasper	001	F01	10	31.	31.	63.	100.	104.	150.	157.	157.	157.				
004 Leeds	003	G01	67	56.	105.	145.	166.	190.	255.	281.	356.	356.	173.	59.77	163.38	1.43
004 Oneonta	001	F01	9	41.	41.	64.	86.	92.	129.	129.	129.	129.	81.	30.29	75.25	1.49
004 Pell City	001	F01	3	53.	53.	53.	63.	73.	73.	73.	73.	73.				
004 Shelby Co	002	F01	6	37.	37.	48.	51.	55.	60.	60.	60.	60.				
004 Sumter Co	001	F01	2	119.	119.	119.	119.	300.	300.	300.	300.	300.				
004 Tarrant City	001	G01	60	45.	81.	119.	149.	175.	221.	238.	370.	370.	154.	58.86	142.76	1.50
004 Tuscaloosa	003	F01	6	45.	45.	79.	84.	130.	132.	132.	132.	132.	95.	33.13	89.31	1.49
005 Baldwin Co	002	F03	6	74.	74.	80.	87.	112.	130.	130.	130.	130.				
005 Brewton	001	F01	5	30.	30.	47.	91.	106.	132.	132.	132.	132.	81.	42.08	70.93	1.85
005 Chickasaw	002	G01	16	49.	55.	61.	69.	94.	103.	125.	125.	125.	78.	21.17	75.68	1.30
005 Mobile	001	G01	8	41.	41.	66.	75.	104.	142.	142.	142.	142.	89.	36.29	82.49	1.54
	002	G01	62	22.	34.	52.	61.	77.	95.	107.	141.	141.	65.	24.41	60.49	1.50
	006	G01	16	68.	74.	102.	114.	134.	182.	226.	226.	226.	127.	41.29	121.18	1.37
	008	G01	86	28.	45.	64.	93.	108.	139.	148.	350.	350.	92.	44.03	83.32	1.56
	009	G01	11	25.	35.	43.	48.	63.	84.	99.	99.	99.	56.	23.20	51.57	1.51
005 Mobile Co	013	G01	13	31.	37.	38.	53.	65.	67.	80.	80.	80.	51.	15.40	48.60	1.35
	021	G01	15	44.	45.	62.	73.	83.	102.	123.	123.	123.	74.	22.38	70.79	1.35
	024	G01	13	44.	54.	66.	80.	110.	117.	122.	122.	122.	86.	26.19	82.46	1.39
	025	G02	13	44.	47.	54.	63.	82.	89.	161.	161.	161.	73.	30.05	68.43	1.40
005 Mountain Brook	001	G03	16	29.	35.	42.	54.	63.	87.	122.	122.	122.	59.	23.98	54.90	1.45
006 Abbeville	001	F01	6	26.	26.	30.	31.	47.	57.	57.	57.	57.	38.	11.83	36.90	1.35
006 Andalusia	001	F01	6	42.	42.	44.	58.	69.	278.	278.	278.	278.	92.	91.84	70.36	2.01
006 Dothan	002	F01	11	32.	34.	86.	89.	111.	192.	206.	206.	206.	102.	54.71	88.34	1.79
006 Eufaula	001	F01	11	38.	43.	50.	65.	77.	100.	101.	101.	101.	66.	22.09	62.69	1.40
007 Athens	001	G01	15	38.	46.	53.	63.	104.	123.	131.	131.	131.	80.	32.69	73.51	1.52
	003	G01	15	54.	55.	60.	86.	105.	129.	224.	224.	224.	93.	43.11	86.31	1.48
007 Cullman	002	G01	13	48.	49.	72.	76.	94.	104.	121.	121.	121.	79.	21.57	76.48	1.32
007 Decatur	001	G01	64	31.	47.	70.	87.	110.	165.	188.	211.	211.	98.	44.23	88.75	1.57
	003	G01	13	45.	47.	59.	67.	103.	157.	159.	159.	159.	84.	39.47	77.25	1.53
	005	G01	15	53.	66.	70.	84.	121.	150.	179.	179.	179.	99.	37.41	93.26	1.44
	006	G02	15	41.	42.	69.	81.	110.	148.	188.	188.	188.	92.	41.67	83.66	1.56
007 Florence	003	F01	13	41.	42.	59.	74.	88.	106.	194.	194.	194.	80.	39.06	73.93	1.50
007 Guntersville	001	F01	9	48.	48.	59.	71.	76.	233.	233.	233.	233.	87.	57.51	77.01	1.62
007 Hartselle	001	G01	14	32.	39.	51.	60.	76.	113.	138.	138.	138.	72.	30.88	66.03	1.53
007 Huntsville	002	H01	15	40.	41.	60.	72.	89.	129.	137.	137.	137.	77.	29.31	72.06	1.45
	003	H01	16	40.	41.	57.	70.	98.	112.	128.	128.	128.	77.	26.89	71.98	1.45
	004	H01	15	40.	41.	48.	71.	80.	101.	106.	106.	106.	69.	24.15	64.82	1.43

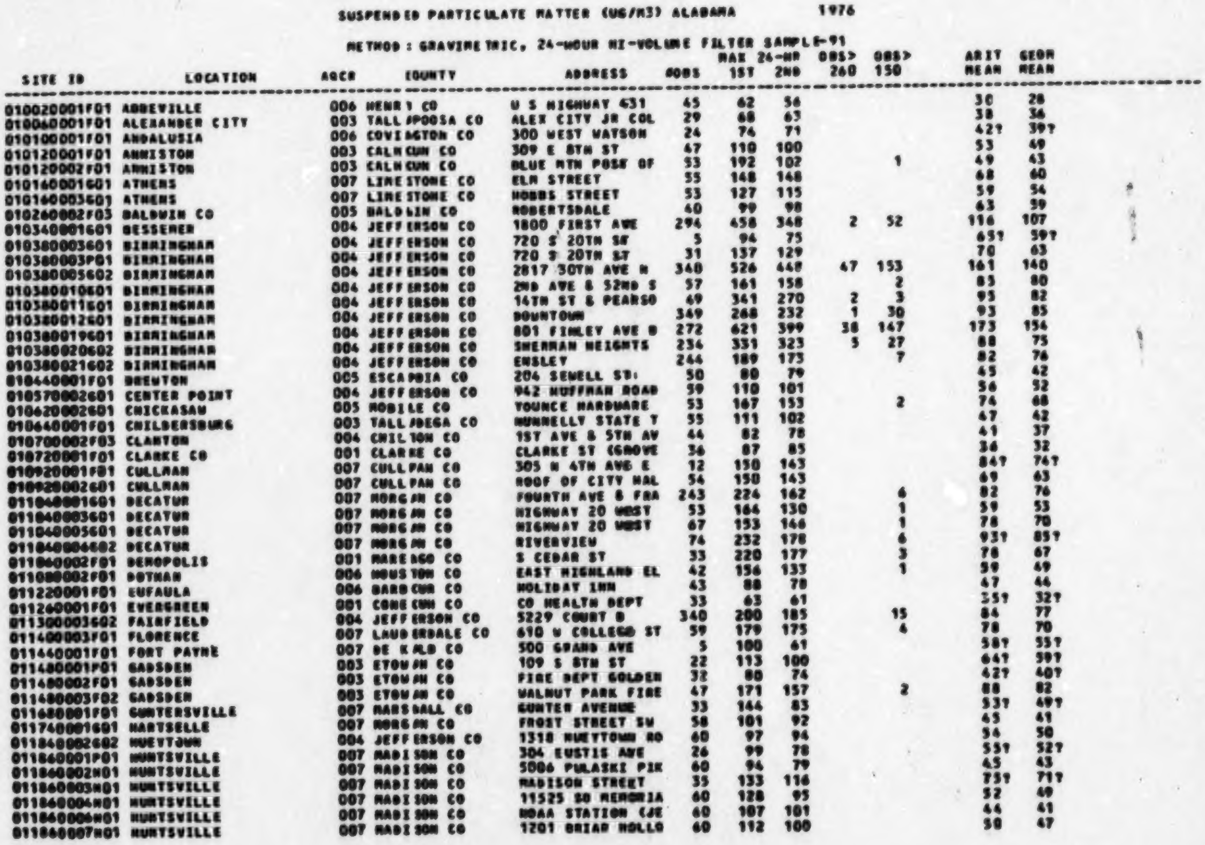
1

Figure 5.2.1.a Quarterly Report

PARTICULATE, micrograms per cubic meter (25 C)
HI-VOL GRAVIMETRIC, 24 hours
1976 Annual Report

Site location	Site No.	Ag/ proj.	No. obs.	Min. obs.	Percentiles							Max. obs.	Arithmetic		Geometric	
					10	30	50	70	90	95	99		Mean	Std. dev.	Mean	Std. dev.
ALABAMA																
001 Clarke Co	001	F01	36	8.	18.	22.	34.	44.	63.	85.	87.	87.	36.	18.93	31.57	1.69
001 Demopolis	002	F01	33	28.	34.	43.	68.	91.	134.	177.	220.	220.	78.	46.91	66.63	1.74
001 Evergreen	001	F01	33	11.	18.	25.	29.	44.	52.	61.	63.	63.				
001 Selma	002	F01	16	42.	46.	56.	64.	84.	117.	120.	120.	120.				
002 Montgomery	001	F01	27	21.	24.	30.	45.	55.	80.	80.	89.	89.	46.	19.29	41.97	1.54
	007	F01	45	25.	33.	38.	49.	70.	95.	109.	125.	125.	57.	24.86	51.88	1.51
002 Opelika	001	F01	41	10.	23.	33.	40.	48.	62.	69.	94.	94.	41.	17.38	37.82	1.56
002 Phenix City	001	F01	24	24.	27.	42.	46.	57.	76.	87.	98.	98.				
002 Troy	002	F01	54	12.	21.	30.	37.	48.	67.	75.	78.	78.	41.	16.79	37.18	1.56
003 Alexander City	001	F01	29	18.	20.	28.	39.	48.	59.	63.	68.	68.	38.	14.30	35.61	1.48
003 Anniston	001	F01	47	21.	28.	42.	53.	57.	80.	97.	110.	110.	53.	21.53	48.76	1.51
	002	F01	53	16.	21.	37.	43.	52.	79.	96.	192.	192.	49.	27.93	43.33	1.61
003 Childersburg	001	F01	55	12.	20.	34.	41.	53.	89.	98.	111.	111.	47.	23.61	41.67	1.67
003 Gadsden	001	F01	22	19.	37.	47.	59.	75.	96.	100.	112.	112.				
	002	F01	32	25.	29.	31.	38.	45.	63.	74.	80.	80.				
	003	F02	47	32.	48.	65.	86.	98.	143.	143.	171.	171.	88.	32.66	81.76	1.47
003 Sylacauga	001	F01	51	20.	28.	42.	57.	70.	88.	104.	114.	114.	58.	22.96	53.72	1.52
003 Talladega	001	F01	20	20.	31.	55.	59.	79.	130.	159.	160.	160.				
004 Bessemer	001	G01	294	18.	62.	89.	108.	135.	178.	197.	256.	458.	116.	48.93	106.75	1.52
004 Birmingham	003	G01	5	26.	26.	54.	74.	75.	94.	94.	94.	94.				
	003	F01	31	23.	36.	52.	60.	87.	114.	129.	137.	137.	70.	31.58	63.33	1.60
	005	G02	340	28.	64.	104.	141.	193.	280.	318.	430.	526.	161.	87.21	139.95	1.72
	010	G01	57	35.	44.	68.	82.	101.	120.	136.	161.	161.	85.	29.47	79.77	1.44
	011	G01	49	28.	39.	62.	87.	108.	139.	165.	341.	341.	95.	56.05	82.46	1.69
	012	G01	349	26.	52.	70.	88.	105.	145.	162.	199.	268.	93.	37.44	85.48	1.50
	019	G01	272	36.	85.	121.	157.	200.	284.	331.	396.	621.	173.	82.05	154.46	1.63
	020	G02	234	17.	36.	57.	75.	98.	159.	208.	281.	331.	88.	55.15	75.06	1.75
	021	G02	244	29.	46.	64.	77.	96.	125.	147.	162.	189.	82.	30.89	76.02	1.47
004 Center Point	002	G01	59	22.	28.	44.	55.	65.	82.	86.	110.	110.	56.	19.32	52.15	1.45
004 Clanton	002	F03	44	15.	20.	31.	37.	49.	67.	75.	82.	82.	41.	17.40	37.28	1.55
004 Fairfield	003	G02	340	21.	44.	61.	78.	98.	136.	148.	179.	200.	84.	34.96	76.66	1.54
004 Hueytown	002	G02	60	21.	29.	40.	51.	67.	79.	89.	97.	97.	54.	20.12	49.92	1.48
004 Irondale	002	G01	60	26.	39.	67.	82.	104.	146.	157.	191.	191.	89.	38.16	80.87	1.59
004 Jasper	001	F01	70	32.	48.	61.	79.	105.	141.	157.	264.	264.	90.	41.43	82.09	1.53
004 Leeds	003	G01	286	27.	74.	113.	145.	197.	294.	375.	571.	583.	170.	100.36	146.14	1.75
004 Oneonta	001	F01	33	22.	34.	47.	60.	69.	104.	130.	132.	132.				
004 Pell City	001	F01	35	25.	32.	41.	47.	54.	85.	109.	190.	190.	55.	30.16	50.04	1.51
004 Shelby Co	002	F01	28	23.	26.	41.	48.	68.	110.	111.	151.	151.				
004 Sumter Co	001	F01	34	15.	19.	23.	31.	34.	68.	79.	102.	102.				
004 Tarrant City	001	G01	295	23.	65.	95.	122.	163.	235.	277.	390.	446.	139.	72.99	121.87	1.69
004 Tuscaloosa	003	F01	34	20.	25.	38.	49.	69.	108.	178.	256.	256.				
005 Baldwin Co	002	F03	40	18.	39.	48.	61.	76.	85.	94.	99.	99.	63.	19.38	59.27	1.42
005 Brewton	001	F01	50	14.	22.	32.	43.	56.	70.	76.	80.	80.	45.	17.71	41.60	1.52
005 Chickasaw	002	G01	53	23.	35.	54.	68.	95.	112.	127.	167.	167.	74.	31.53	67.88	1.56
005 Mobile	001	G01	20	33.	33.	43.	67.	79.	96.	110.	130.	130.				
	001	F01	24	27.	30.	44.	49.	57.	78.	84.	97.	97.				
	002	G01	48	28.	33.	44.	57.	77.	103.	116.	169.	169.	65.	28.88	58.92	1.53
	006	G01	106	27.	51.	81.	107.	166.	232.	306.	407.	567.	135.	89.09	112.63	1.83
	008	G01	108	19.	48.	68.	92.	117.	146.	191.	213.	344.	97.	47.77	86.25	1.65
	009	G01	53	17.	21.	32.	38.	58.	75.	99.	116.	116.	46.	23.13	40.71	1.62
	011	G01	50	24.	39.	56.	68.	92.	133.	171.	251.	251.	84.	45.18	73.80	1.65
005 Mobile Co	013	G01	48	11.	25.	30.	40.	52.	97.	107.	169.	169.	48.	29.35	41.63	1.72
	021	G01	60	13.	28.	44.	64.	79.	110.	118.	148.	148.	65.	29.79	58.23	1.66
	024	G01	57	15.	36.	44.	51.	69.	107.	136.	241.	241.	64.	37.16	56.71	1.62
	025	G02	51	17.	25.	34.	46.	57.	82.	104.	156.	156.	53.	28.71	46.69	1.65
005 Mountain Brook	001	G03	57	21.	23.	35.	42.	48.	67.	72.	91.	91.	44.	15.69	40.99	1.43
005 Prichard	003	G01	57	31.	38.	63.	80.	109.	143.	173.	227.	227.	89.	41.94	80.64	1.59
005 Saraland	001	G01	45	21.	28.	35.	49.	63.	84.	93.	98.	98.				
006 Abbeville	001	F01	45	11.	15.	23.	28.	35.	49.	53.	62.	62.	30.	11.99	27.79	1.50
006 Andalusia	001	F01	24	16.	23.	33.	41.	47.	59.	71.	74.	74.				
006 Dothan	002	F01	42	10.	18.	36.	53.	66.	118.	118.	156.	156.	59.	34.44	49.46	1.88
006 Eufaula	001	F01	43	18.	27.	39.	45.	55.	72.	75.	88.	88.	47.	15.86	44.33	1.42
007 Athens	001	G01	55	12.	32.	47.	56.	76.	127.	139.	148.	148.	68.	34.16	59.82	1.67
	003	G01	53	13.	33.	42.	54.	68.	91.	102.	127.	127.	59.	24.43	53.77	1.56
007 Cullman	001	F01	12	28.	30.	65.	83.	100.	143.	150.	150.	150.				
	002	G01	54	26.	35.	48.	59.	83.	113.	138.	150.	150.	69.	31.48	62.80	1.56
007 Decatur	001	G01	243	25.	44.	64.	78.	94.	124.	142.	160.	224.	82.	31.69	76.12	1.49
	003	G01	53	12.	29.	43.	50.	67.	97.	117.	164.	164.	59.	29.26	52.52	1.63
	005	G01	67	24.	39.	52.	69.	101.	132.	137.	153.	153.	78.	35.87	69.89	1.61

Figure 5.2.1.b Yearly Reports



SUSPENDED PARTICULATE MATTER (UG/M3) ALABAMA 1976

METHOD : GRAVIMETRIC, 24-HOUR HI-VOLUME FILTER SAMPLE-91

SITE ID	LOCATION	AQCR	COUNTY	ADDRESS	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS> 260	OBS> 150	ARIT MEAN	GEOM MEAN
010020001F01	ABBEVILLE	006	HENRY CO	U S HIGHWAY 431	45	62	56			30	28
010060001F01	ALEXANDER CITY	003	TALLAPOOSA CO	ALEX CITY JR COL	29	68	63			38	36
010100001F01	ANDALUSIA	006	COVINGTON CO	300 WEST WATSON	24	76	71			42?	39?
010120001F01	ANNISTON	003	CALHOUN CO	309 E 8TH ST	47	110	100			53	49
010120002F01	ANNISTON	003	CALHOUN CO	BLUE MTN POST OF	53	192	102		1	49	43
010160001G01	ATHENS	007	LIMESTONE CO	ELM STREET	55	148	148			68	60
010160003G01	ATHENS	007	LIMESTONE CO	HOBBS STREET	53	127	115			59	54
010260002F03	BALDWIN CO	005	BALDWIN CO	ROBERTSDALE	40	99	98			63	59
010340001G01	BESSEMER	004	JEFFERSON CO	1800 FIRST AVE	294	458	348	2	52	116	107
010380003G01	BIRMINGHAM	004	JEFFERSON CO	720 S 20TH ST	5	94	75			65?	59?
010380003P01	BIRMINGHAM	004	JEFFERSON CO	720 S 20TH ST	31	137	129			70	63
010380005G02	BIRMINGHAM	004	JEFFERSON CO	2817 30TH AVE N	340	526	448	47	153	161	140
010380010G01	BIRMINGHAM	004	JEFFERSON CO	2ND AVE & 52ND S	57	161	158		2	83	80
010380011G01	BIRMINGHAM	004	JEFFERSON CO	14TH ST & PEARSO	69	341	270	2	3	93	82
010380012G01	BIRMINGHAM	004	JEFFERSON CO	DOWNTOWN	349	268	232	1	30	93	85
010380019G01	BIRMINGHAM	004	JEFFERSON CO	801 FINLEY AVE W	272	621	399	38	147	173	154
010380020G02	BIRMINGHAM	004	JEFFERSON CO	SHERMAN HEIGHTS	234	331	323	5	27	88	75
010380021G02	BIRMINGHAM	004	JEFFERSON CO	ENSLEY	244	189	173		7	82	76
010440001F01	BREWTON	005	ESCAMBIA CO	204 SEWELL ST:	50	80	79			45	42
010570002G01	CENTER POINT	004	JEFFERSON CO	942 HUFFMAN ROAD	59	110	101			56	52
010620002G01	CHICKASAW	005	MOBILE CO	YOUNCE HARDWARE	53	167	153		2	74	68
010640001F01	CHILDERSBURG	003	TALLADEGA CO	NUNNELLY STATE T	55	111	102			47	42
010700002F03	CLANTON	004	CHILTON CO	1ST AVE & 5TH AV	44	82	78			41	37
010720001F01	CLARKE CO	001	CLARKE CO	CLARKE ST (GROVE	36	87	85			36	32
010920001F01	CULLMAN	007	CULLMAN CO	305 N 4TH AVE E	12	150	143			84?	76?
010920002G01	CULLMAN	007	CULLMAN CO	ROOF OF CITY HAL	54	150	143			69	63
011040001G01	DECATUR	007	MORGAN CO	FOURTH AVE & FRA	243	224	162		6	82	76
011040003G01	DECATUR	007	MORGAN CO	HIGHWAY 20 WEST	53	164	130		1	59	53
011040005G01	DECATUR	007	MORGAN CO	HIGHWAY 20 WEST	67	153	146		1	78	70
011040006G02	DECATUR	007	MORGAN CO	RIVERVIEW	74	232	178		6	93?	85?
011060002F01	DEMOPOLIS	001	MARENGO CO	S CEDAR ST	33	220	177		3	78	67
011080002F01	DOTHAN	006	HOUSTON CO	EAST HIGHLAND EL	42	156	133		1	59	49
011220001F01	EUFAULA	006	BARBOUR CO	HOLIDAY INN	43	88	78			47	44
011260001F01	EVERGREEN	001	CONECUH CO	CO HEALTH DEPT	33	63	61			35?	32?
011300003G02	FAIRFIELD	004	JEFFERSON CO	5229 COURT B	340	200	185		15	84	77
011400003F01	FLORENCE	007	LAUDERDALE CO	610 W COLLEGE ST	59	179	175		6	78	70
011440001F01	FORT PAYNE	007	DE KALB CO	500 GRAND AVE	5	100	61			58?	55?
011480001F01	GADSDEN	003	ETOWAH CO	109 S 8TH ST	22	113	100			64?	59?
011480002F01	GADSDEN	003	ETOWAH CO	FIRE DEPT GOLDEN	32	80	74			42?	40?
011480003F02	GADSDEN	003	ETOWAH CO	WALNUT PARK FIRE	47	171	157		2	88	82
011680001F01	GUNTERSVILLE	007	MARSHALL CO	GUNTER AVENUE	33	144	83			53?	49?
011740001G01	HARTSELLE	007	MORGAN CO	FROST STREET SW	58	101	92			45	41
011840002G02	HUEYTOWN	004	JEFFERSON CO	1318 HUEYTOWN RD	60	97	94			54	50
011860001F01	HUNTSVILLE	007	MADISON CO	304 EUSTIS AVE	26	99	78			55?	52?
011860002H01	HUNTSVILLE	007	MADISON CO	5006 PULASKI PIK	60	94	79			45	43
011860003H01	HUNTSVILLE	007	MADISON CO	MADISON STREET	35	133	116			73?	71?
011860004H01	HUNTSVILLE	007	MADISON CO	11525 SO MEMORIA	60	128	95			52	49
011860006H01	HUNTSVILLE	007	MADISON CO	NOAA STATION (JE	60	107	101			44	41
011860007H01	HUNTSVILLE	007	MADISON CO	1201 BRIAR HOLLO	60	112	100			50	47

II-3

Figure 5.2.1.c

General Description

This publication, that is a complete directory of all site data for SAROAD monitoring sites in the United States, is published annually by NADB. The 1972 edition (EPA-450/2-73-006, September 1973) contains 800 pages, of which pages i-vi contain the title page, table of contents, etc.; pages 1-4 are the introduction including the two-page SAROAD Site Identification Form and the Agency Type and Project Classification Codes; and the remaining 790 pages constitute the body of the report. Future directories will include only sites active in year X, and the pollutants that were reported will also be given by site.

The sequencing of the site information is by State and location name, both in alphabetical order. Within a given location, the ordering is by Site Code Number and Agency Type Code. The arrangement of the information is as shown in paragraph 2.3.1.5, that contains the description of the SAROAD Site Description Inventory, except for some format differences as shown in the sample report.

Sample Report

Figure 5.2.2.a shows a sample page from the directory. The sequencing of the individual items may be seen in the data for Sites 020160001, in Fairbanks, Alaska. The ordering extends to the Agency Type Code and, in the case of the Fairbanks site, to the Project Classification Code.

Figure 5.2.2.b shows a sample page from the Directory of Air Quality Monitoring Sites Active in 1973. This figure shows the site descriptions and the list of pollutants reported for each site.

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Routine Publications	**SECTION** 5	**CHAPTER** 2	**SUBJECT** 2
NATIONAL AIR DATA BRANCH	**CHAPTER** Air Quality Data	**DATE**		**PAGE**
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT** Directory of Air Quality Monitoring Sites	3/1/79 Update III-2		2

ALASKA

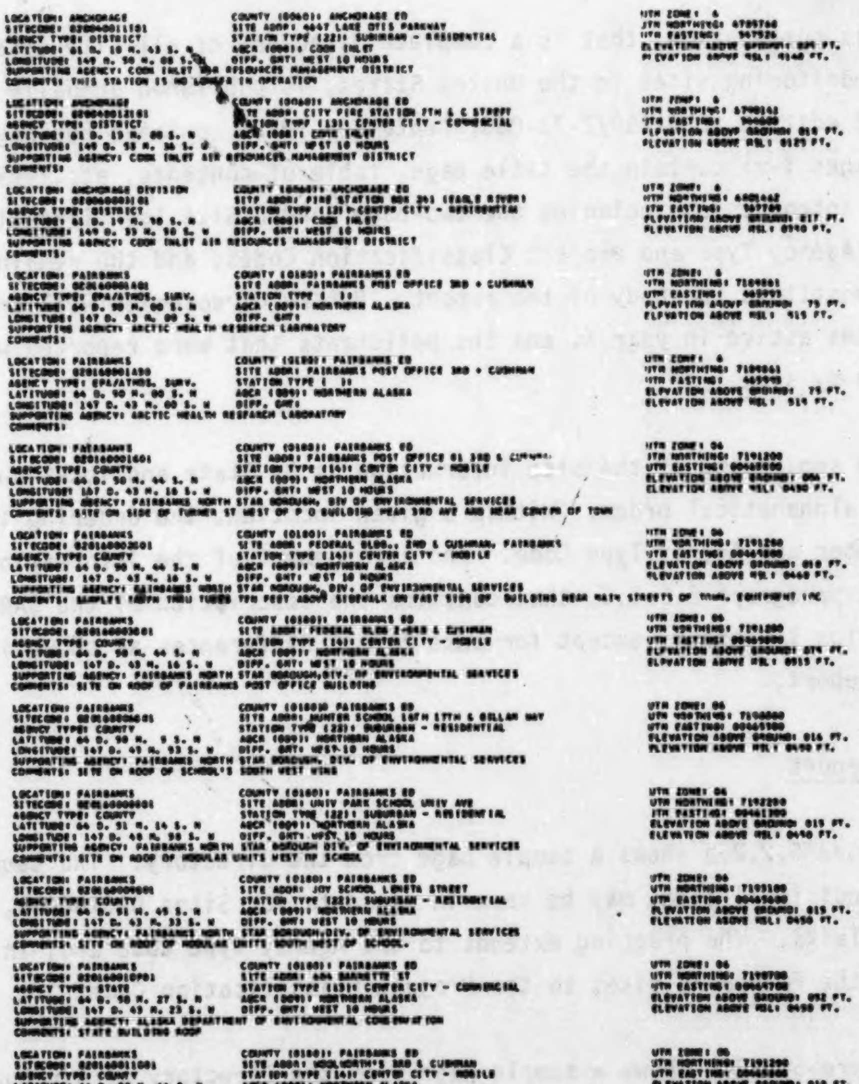


Figure 5.2.2.a

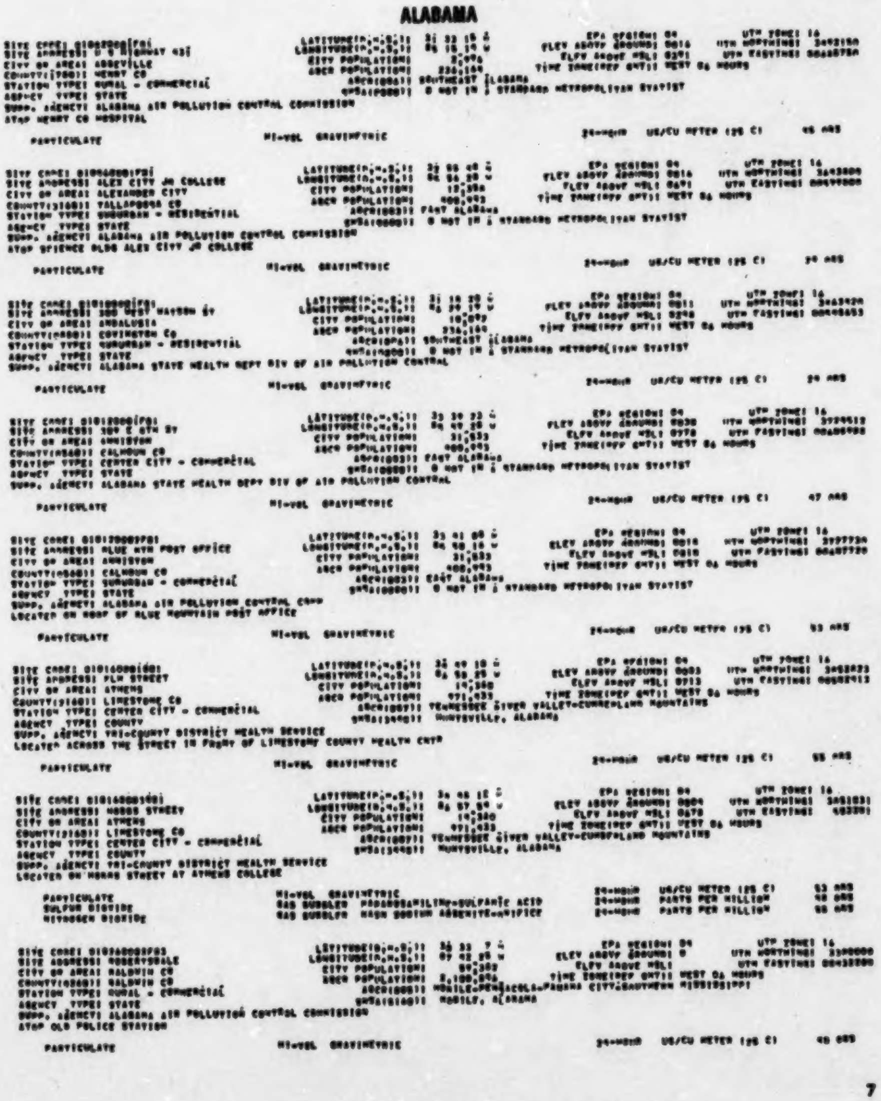

ALABAMA

Figure 5.2.2.b Directory of Air Quality Sites Active in 1973

This publication contains data for a limited number of non-criteria pollutants that are collected on a high-volume sampler filter as particulate matter and chemically analyzed for the specific elements or ions. Because these data are not a part of the monitoring and reporting requirements, these data are not as extensive as for criteria pollutants. For this reason, this publication is not published on an annual basis. Also, rather than providing extensive statistics, this publication is designed to provide an inventory of the data.

The data items which are included for each site pollutant that has been reported are:

a. State name
b. Site code
c. Site location name
d. Site address
e. Agency Project code
f. Sampling interval
g. Year of the data
h. Number of observations
i. Maximum value
j. Arithmetic mean

The arithmetic mean is printed only for data that meets the summary criteria.

The publication is organized according to the following hierarchy:

a. Pollutant
b. Method of collection and analysis
c. State name
d. Agency/Project code
e. Sampling interval
f. Year of the Data

Sample Report

Figure 5.2.3-a is an example page from this publication.

ENVIRONMENTAL PROTECTION AGENCY	SECTION Routine Publications	SECTION 5	CHAPTER 2	SUBJECT 3
NATIONAL AIR DATA BRANCH	CHAPTER Air Quality Data	DATE		PAGE
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	SUBJECT Non-Criteria Pollutants	3/1/79 Update III-2		3

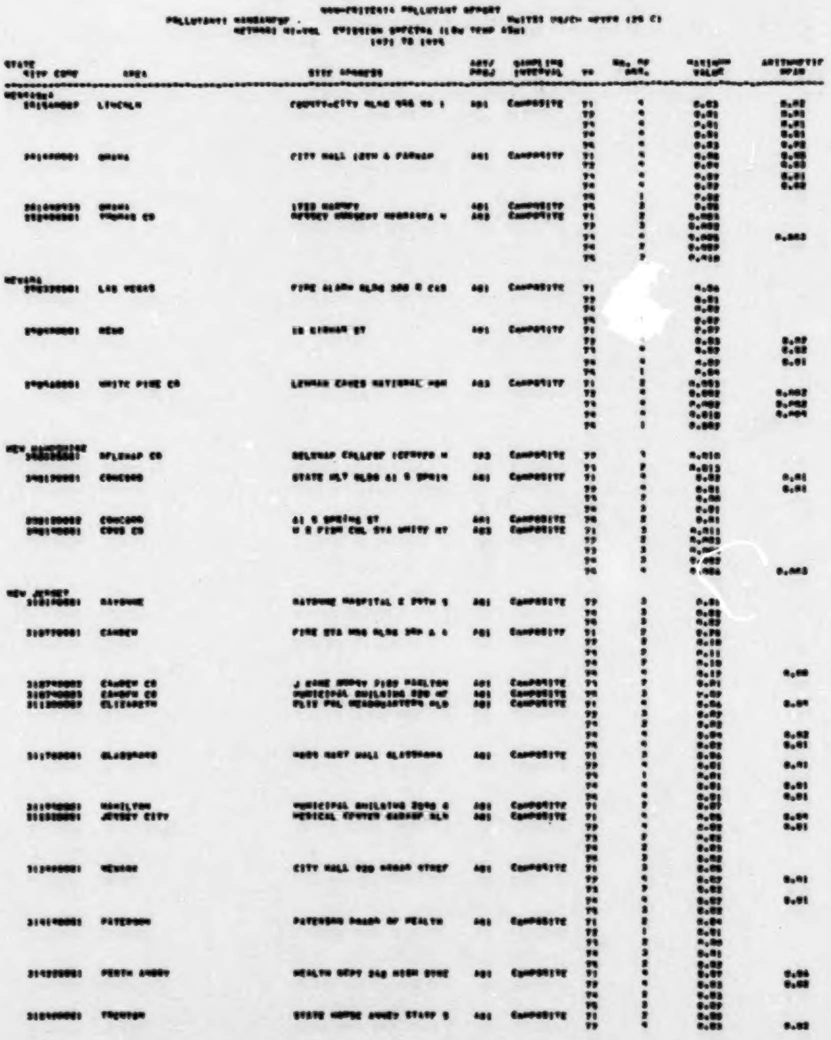


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Figure 5.2.3.a

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** Applications	**SECTION** 6	**CHAPTER** 3	**SUBJECT** 0
NATIONAL AIR DATA BRANCH	**CHAPTER** Air Quality Assurance Data	**DATE** 3/1/79		**PAGE** 1
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT**	Update III-2		

NADB no longer has the responsibility for maintaining the Air Quality Assurance Data.

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER**	File Description	**DATE**		**PAGE** 1
	SUBJECT	SAROAD			
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER**	NADB	3/1/79		
	FILE NAME	NADB-AL-SFPI	Update III-2		

FILE DESCRIPTION AND USE

NADB-AL-SFPI a primary index, contains summary-frequency keys and block pointers to NADB-AL-SFBK. The file is used to locate SAROADS Summary-Frequency bulk data. It can be used as a stand-along index or it can be used in conjunction with NADB-AL-SFSI, a secondary index. These files are used by access and report programs to retrieve data for summary-frequency reports.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ______

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☒ DIRECT
- ☐ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ______

☐ OTHER ______

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB*NADB-DESC

☐ NO PROC NAME NADB-AL-SFPI

BLOCKING

☐ BLOCKED: 4960 ☒ CHARACTERS ☐ RECORDS PER BLOCK

☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 4960 CHARACTERS

☐ VARIABLE LENGTH: ______ THROUGH ______ CHARACTERS

KEY (IF APPLICABLE)

16 CHARACTERS LONG

CONTENT: STATE,AREA,SITE,AGENCY,PROJECT, POLLUTANT,METHOD,INTERVAL,YEAR,UNITS (=High values) SFBK PTR.

RECORDING MODE

☒ INTERNAL ☐ F ☐ AN

☐ COMPACT ☐ U ☐ AN

☐ CFH ☐ V ☐ AN

☐ ______

FILE AVAILABILITY

☐ RESTRICTED

☒ PERMANENT

☐ TEMPORARY

☐ ______

STORAGE MEDIUM

☒ DISK

☐ TAPE ☒ LABELED ☐ UNLABELED

☐ CARDS

☐ ______

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA034 (PROGRAM NAME)

FILE SIZE: ______ AS OF ______

UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)

ANTICIPATED GROWTH: ______ ☐ RECORD ☐ TRACKS ☐ ______ PER ______

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL

MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK

LOCATED AT: NCC

FILE NAME: NADB-AL-SFPI

FREQUENCY: At each update

NUMBER OF GENERATIONS KEPT:

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE**		**PAGE** 2
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-AL-SFPI	3/1/79 Update III-2		

FILE NAME/DESCRIPTION NADB-AL-SFPI

RECORD NAME/DESCRIPTION SFPI-HEADER

APPLICATION SAROAD

DATE June 04, 1976

PAGE 1 **OF** 1

RECORD POSITION					
FIRST	**LAST**	**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
01	16	16		SFPI-HEADER	SFPI 1st Entry = Header
01	04	4	9(8) COMP	SGPI-LST-IXRC	Last SFPI Index Record#
05	08	4	9(8) COMP	SFPI-LST-IXKY	Last SFPI Index Key # in last SFPI Record.
09	12	4	9(8) COMP	SFPI-LST-BULK	Last SFPI BULK (NADB-AL-SFBK) Record #
13	16	4		SFPI-DATE	Create/Update Date
			99 DISP-1	SFPI-MON	Month
			99 DISP-1	SFPI-DAY	Day
			99 DISP-1	SFPI-YR	Year

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7	**CHAPTER** 2 / **SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE**	**PAGE** 3
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-AL-SFPI	3/1/79 Update III-2	

FILE NAME/DESCRIPTION
NADB-AL-SFPI

RECORD NAME/DESCRIPTION
SFPI-RECORD

APPLICATION SAROAD

DATE June 04, 1976

PAGE 1 **OF** 1

RECORD POSITION			DATA ITEM		
FIRST	LAST	LENGTH	PICTURE	DATA ITEM NAME	DESCRIPTION
01	4960	4960		SFPI-RECORD	Summary-Frequency Primary Index
01	16	16	occurs 310	SFPI-KEYREC	
01	14	14		SFPI-KEY	Site/Pollutant/Date Key
01	13	13		SFPI-KEY-TO-YEAR	Site/Pollutant/Year Key
01	08	8		SFPI-SITE-DESC	Site Description
01	06	6		SFPI-SITE-KEY	Site-Key
01	02	2	X(2)	SFPI-STATE	State
03	04	2	9999 COMP	SFPI-AREA	Area
05	06	2	999 COMP	SFPI-SITE	Site
07	07	1	X	SFPI-AGY	Agency
08	08	1	99 COMP	SFPI-PRJ	Project
09	12	4		SFPI-POLL-KEY	Pollutant Key
09	11	3		SFPI-POLL-ME	Pollutant-Method
09	10	2	99999 COMP	SFPI-POLL	Pollutant
11	11	1	99 COMP	SFPI-METH	Method
12	12	1	X	SFPI-INT	Interval
13	13	1	99 COMP	SFPI-YEAR	Year
14	14	1	99 COMP	SFPI-UNITS	Units (High-Values)
15	16	2	99999 COMP	SFPI-BLK-PTR	Bulk-Pointer

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
	CHAPTER	File Description			
NATIONAL AIR DATA BRANCH	**SUBJECT**	SAROAD	**DATE**		**PAGE** 4
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER**	NADB	3/1/79		
	FILE NAME	NADB-AL-SFSI	Update III-2		

FILE DESCRIPTION AND USE

NADB-AL-SFSI, a secondary index, contains an index to NADB-AL-SFPI, the primary index of the SAROADS Summary-Frequency bulk data. Each entry of NADB-AL-SFSI represents the last entry of each block (310 indexes) of NADB-AL-SFPI. The file is used to locate proper primary index blocks which in turn are used to locate Summary-Frequency data blocks. These indices are used by access and report programs to retrieve data for summary-frequency reports.

FILE TYPE

☐ SDF
☐ PRINT FILE
☐ PUNCH FILE
☐
☒ ASCII COBOL
☐ SEQUENTIAL
☒ DIRECT
☐ INDEXED - SEQUENTIAL
☐ FORTRAN
☐ FORMATTED
☐ UNFORMATTED
☐
☐ OTHER

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB*NADB-DESC
☐ NO PROC NAME NADB-AL-SFSI

BLOCKING

☐ BLOCKED: 4960 ☒ CHARACTERS ☐ RECORDS PER BLOCK
☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 4960 CHARACTERS
☐ VARIABLE LENGTH:
THROUGH CHARACTERS

KEY (IF APPLICABLE)

16 CHARACTERS LONG
CONTENT: STATE,AREA,SITE,AGENCY,PROJECT POLLUTANT,METHOD,INTERVAL,YEAR,UNITS (=H-V), SFPI-PTR

RECORDING MODE

☒ INTERNAL ☐ F ☐ AN
☐ COMPACT ☐ U ☐ AN
☐ CFH ☐ V ☐ AN
☐

FILE AVAILABILITY

☐ RESTRICTED
☒ PERMANENT
☐ TEMPORARY
☐

STORAGE MEDIUM

☒ DISK
☐ TAPE ☒ LABELED
☐ CARDS ☐ UNLABELED
☐

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA034 (PROGRAM NAME)
FILE SIZE: AS OF
UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)
ANTICIPATED GROWTH: ☐ RECORD ☐ TRACKS ☐ PER

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL
MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK
LOCATED AT: NCC
FILE NAME: NADB-AL-SFSI
FREQUENCY: At each update
NUMBER OF GENERATIONS KEPT:

FILE NAME/DESCRIPTION NADB-AL-SFSI	**RECORD NAME/DESCRIPTION** SFSI-RECORD

APPLICATION SAROAD	**DATE** June 04, 1976	**PAGE** 1 **OF** 1

RECORD POSITION			DATA ITEM		
FIRST	**LAST**	**LENGTH**	**PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
01	4960	4960		SFSI-RECORD	Summary-Frequency Secondary-INDX
01	16	16	Occurs 310	SFSI-KEYREC	
01	14	14		SFSI-KEY	Site/Pollutant/Date Key
01	13	13		SFSI-KEY-TO-YEAR	Site/Pollutant/Year key
01	08	8		SFSI-SITE-DESC	Site Description
01	06	6		SFSI-SITE-KEY	Site Key
01	02	2	X(2)	SFSI-STATE	State
03	04	2	9999 COMP	SFSI-AREA	Area
05	06	2	999 COMP	SFSI-SITE	Site
07	07	1	X	SFSI-AGENCY	Agency
08	08	1	99 COMP	SFSI-PROJECT	Project
09	12	4		SFSI-POLL-KEY	Pollutant Key
09	11	3		SFSI-POLL-ME	Pollutant-Method
09	10	2	99999 COMP	SFSI-POLL	Pollutant
11	11	1	99 COMP	SFSI-METH	Method
12	12	1	X	SFSI-INT	Interval
13	13	1	99 COMP	SFSI-YEAR	Year
14	14	1	99 COMP	SFSI-UNITS	Units (High-Value)
15	16	2	99999 COMP	SFSI-SFPI-PTR	SFPI Pointer

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE**		**PAGE** 6
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-AL-SFBK	3/1/79 Update III-2		

FILE DESCRIPTION AND USE

NADB-AL-SFBK contains all the summary and frequency information for all SAROADS data (current and historic less than 24-hour and all greater than 24-hour). The bulk data is organized by unique site key (state, area, site, agency, project, pollutant, method, interval, and year). Data exists for the interval codes 1-7 B, X, Y, and Z. This file, along with NADB-AL-SFPI and NADB-AL-SFSI, are used by various SAROADS report and access programs to produce summary and frequency report listings. The data record contains quarterly and yearly integrated summary and frequency data items pertaining to one key and each has a checksum and a data key.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ____

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☒ DIRECT
- ☐ INDEXED · SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ____

☐ OTHER ____

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB*NADB-DESC
☐ NO PROC NAME NADB-AL-SFBK

BLOCKING

☐ BLOCKED: 560 ☒ CHARACTERS ☐ RECORDS PER BLOCK
☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 560 CHARACTERS
☐ VARIABLE LENGTH: ____ THROUGH ____ CHARACTERS

KEY (IF APPLICABLE)

____ CHARACTERS LONG
CONTENT: SFBK relative block pointed to by NADB-AL-SFPI (SFPI-BLK-PTR)

RECORDING MODE

☒ INTERNAL ☐ F ☐ AN
☐ COMPACT ☐ U ☐ AN
☐ CFH ☐ V ☐ AN
☐ ____

FILE AVAILABILITY

☐ RESTRICTED
☒ PERMANENT
☐ TEMPORARY
☐ ____

STORAGE MEDIUM

☒ DISK
☐ TAPE ☒ LABELED
☐ UNLABELED
☐ CARDS
☐ ____

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA034 (PROGRAM NAME)
FILE SIZE: ____ AS OF ____
UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)
ANTICIPATED GROWTH: ____ ☐ RECORD ☐ TRACKS ☐ ____ PER ____

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL
MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK
LOCATED AT: NCC
FILE NAME: NADB-AL-SFBK
FREQUENCY: AT EACH UPDATE
NUMBER OF GENERATIONS KEPT:

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
	CHAPTER	File Description			
NATIONAL AIR DATA BRANCH	**SUBJECT**	SAROAD	**DATE**		**PAGE** 7
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER**	NADB	3/1/79		
	FILE NAME	NADB-AL-SFBK	Update III-2		

FILE NAME/DESCRIPTION	**RECORD NAME/DESCRIPTION**	
NADB-AL-SFBK	SFBK-RECORD-01	
APPLICATION SAROAD	**DATE** Dec. 1, 1976	**PAGE** 1 **OF** 3

RECORD POSITION					
FIRST	**LAST**	**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
01	560	560		SFBK-RECORD-01	Summary-frequency data - non-X, Y, Z.
01	108	108	occurs 5	SFBK-SUMFRQ-DATA INDEXED BY Q	4 quarterly and 1 yearly summary and frequency entries (See note 1).
01	02	2	SH9(5)	SFBK-OBSERVATIONS	#OBS.
03	04	2	X(2)	SFBK-UNITS	Last reported units per key excluding units.
05	08	4	COMP-1	SFBK-10-PCT	10th Percentile.
09	12	4	COMP-1	SFBK-30-PCT	30th Percentile.
13	16	4	COMP-1	SFBK-50-PCT	50th Percentile
17	20	4	COMP-1	SFBK-70-PCT	70th Percentile
21	24	4	COMP-1	SFBK-90-PCT	90th Percentile
25	28	4	COMP-1	SFBK-95-PCT	95th Percentile
29	32	4	COMP-1	SFBK-99-PCT	99th Percentile
33	36	4	COMP-1	SFBK-1st-HVAL	Highest data value
37	40	4	COMP-1	SFBK-2nd-HVAL	2nd Highest
41	44	4	COMP-1	SFBK-3rd-HVAL	3rd Highest
45	46	2	SH9(5)	SFBK-1st-HVALCNT	# occurrences 1st
47	48	2	SH9(5)	SFBK-2nd-HVALCNT	# occurrences 2nd
49	50	2	SH9(5)	SFBK-3rd-HVALCNT	# occurrences 3rd
51	52	2	SH9(5)	SFBK-PRVLCNT	# Primary violations
53	54	2	SH9(5)	SFBK-SCVLCNT	# Secondary violations
55	55	1	COMP	SFBK-VALID-QTRS-OR-QTR	1st 4 = non-zero if data available and thus sum-frq present per each quarter; 5th = # valid quarter. (See note 1).
56	56	1	X	FILLER	
57	60	4	COMP-1	SFBK-MIN	Minimum data value
61	64	4	X(6) DISP-1	SFBK-TIME-MAX	Time of occurrence of maximum value

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7 · **CHAPTER** 2 · **SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE** 3/1/79 · **PAGE** 8
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-AL-SFBK	Update III-2

FILE NAME/DESCRIPTION NADB-AL-SFBK

RECORD NAME/DESCRIPTION SFBK-RECORD-01

APPLICATION SAROAD

DATE Dec. 1, 1976

PAGE 2 **OF** 3

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
65	68	4	X(6) DISP-1	SFBK-TIME-SCMAX	Time of occurrence of 2nd maximum
69	72	4	COMP-1	SFBK-AR-MEAN	Arithmetic Mean
73	76	4	COMP-1	SFBK-GE-MEAN	Geometric Mean
77	80	4	COMP-1	SFBK-AR-STDEV	Arith. Stnd. Deviation
81	84	4	COMP-1	SFBK-GE-STDEV	Geom. Stnd. Deviation
85	88	4	COMP-1	SFBK-MEDIAN	Median
89	92	4	COMP-1	SFBK-SUM-VAL	Sum of values
93	96	4	COMP-1	SFBK-SUM-LNVAL	Sum of Nat. Log of Val.
97	100	4	COMP-1	SFBK-PCT-OBS	Percentage of observation
101	104	4	COMP-1	SFBK-SUB-VAL	Substitution value
105	106	2	SH9(5)	SFBK-SUBCNT	# Occurrences of Sub.
107	107	1	X	SFBK-CRT-FLAG	Criteria Flag
108	108	1	X	FILLER	
541	544	4	9(10) COMP	SFBK-CHKSUM	Checksum of data (See note 2)
545	560	16	X(16)	SFBK-KEY	SFPI-Key echoed (See note 3)

Note 1. The 1st 108 positions of SFBK-RECORD-01 (SFBK-OBSERVATIONS thru SFBK-CRT-FLAG & SUBSEQUENT FILLER) occurrence for quarter (1, 2, 3, 4 respectively) followed by one occurrence for the year. If raw data from NADB-ND-BULK or NADB-GT-DISK) is available for the respective quarter/year then SFBK-VALID-QTRS-OR-QTR will be set non-zero representing that summary-frequency quarter data is present for the quarter/year.

Note 2. The checksum is the arithmetic summation of all data in the record excluding the checksum itself and the key, SFBK-KEY.

Note 3. This item represents the key for the summary-frequency data and is coded as follows:

FILE NAME/DESCRIPTION NADB-AL-SFBK		**RECORD NAME/DESCRIPTION** SFBK-RECORD-01
APPLICATION SAROAD	**DATE** Dec. 1, 1976	**PAGE** 3 **OF** 3

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
545	546	2	X(2)		STATE
547	548	2	9999 COMP		AREA
549	550	2	999 COMP		SITE
551	551	1	X		AGENCY
552	552	1	99 COMP		PROJECT
553	554	2	99999COMP		POLLUTANT
555	555	1	99 COMP		METHOD
556	556	1	X		INTERVAL
557	557	1	99 COMP		YEAR
558	558	1	99 COMP		UNITS: (=HIGH VALUES)
559	560	2	99999COMP		BULK POINTER

FILE NAME/DESCRIPTION NADB-AL-SFBK	**RECORD NAME/DESCRIPTION** SFBK-RECORD-02

APPLICATION SAROAD	**DATE** Dec. 1, 1976	**PAGE** 1 **OF** 1

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
01	560	560		SFBK-RECORD-02	Summary & Frequency Date - X, Y, Z
01	108	108	occurs 5	SFBK-RUNAVG-DATA INDEXED BY Q1	4 Quarterly & 1 Yearly summary-frequency entries
01	68	68	X(68)	FILLER	Defined same as per SFBK-RECORD-01
69	72	4	COMP-1	SFBK-SCMAX	Maximized 2nd maximum data value
73	74	2	SH9(5)	SFBK-NOVL-PRVLCNT	# Nonoverlapping Primary violations
75	76	2	SH9(5)	SFBK-NOVL-SCVLCNT	# Nonoverlapping Secondary violations
77	108	32	X(32)	FILLER	Defined same as per SFBK-RECORD-01
541	560	20	X(20)	FILLER	Defined same as per SFBK-RECORD-01

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2 **SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE**	**PAGE** 11
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-AL-SFBK	3/1/79 Update III-2	

FILE NAME/DESCRIPTION NADB-AL-SFBK

RECORD NAME/DESCRIPTION SFBK-RECORD-03

APPLICATION SAROAD

DATE Dec. 1, 1976

PAGE 1 **OF** 1

RECORD POSITION FIRST	LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
01	560	560		SFBK-RECORD-03	Summary & Frequency checksum data
01	04	4	occurs 135 9(10) COMP	SFBK-CHKSUM-DATA	Data treated as 36 bit computational
541	560	20	X(20)	FILLER	Defined as per SFBK-RECORD-01 Positions 541-560

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** USER GENERATED RETRIEVALS	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** FILE DESCRIPTION **SUBJECT** SAROAD	**DATE**		**PAGE** 12
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-ND-INDX	3/1/79 Update III-2		

FILE DESCRIPTION AND USE

NADB-ND-INDX contains the unique keys and pointers for the current SAROAD continuous data values stored in the NADB-ND-BULK file. The key is state-area-site-agency-project-pollutant-method-interval-year-units. With each key is a pointer which is the relative block address for the associated value record in NADB-ND-BULK. There are 310 four word keys in each physical record in NADB-ND-INDX. NADB-ND-INDX is used by SAROAD report program to access current continuous raw data.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ____________

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☒ DIRECT
- ☐ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ____________

☐ OTHER ____________

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC
☐ NO PROC NAME NADB-ND-INDX

BLOCKING

☐ BLOCKED: 4960 ☒ CHARACTERS ☐ RECORDS PER BLOCK
☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 4960 CHARACTERS
☐ VARIABLE LENGTH: ______ THROUGH ______ CHARACTERS

KEY (IF APPLICABLE)

NONE CHARACTERS LONG*
CONTENT: File is accessed VIA a pointer which is a record number (relative number within the file).

RECORDING MODE

☐ INTERNAL ☐ F ☐ AN
☒ COMPACT ☐ U ☐ AN
☐ CFH ☐ V ☐ AN
☐ ____________

FILE AVAILABILITY

☐ RESTRICTED
☒ PERMANENT
☐ TEMPORARY
☐ ____________

STORAGE MEDIUM

☒ DISK
☐ TAPE ☒ LABELED ☐ UNLABELED
☐ CARDS
☐ ____________

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA029/D (PROGRAM NAME)
FILE SIZE: ____________ AS OF ____________
UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)
ANTICIPATED GROWTH: ______ ☐ RECORD ☐ TRACKS ☐ ______ PER ______

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL
MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK
LOCATED AT: NCC (2 copies)
FILE NAME: NADB-ND-CBXP
FREQUENCY: 2 weeks
NUMBER OF GENERATIONS KEPT: 4

FILE NAME/DESCRIPTION NADB-ND-INDX

RECORD NAME/DESCRIPTION NDIX-RECORD

APPLICATION SAROAD

DATE

PAGE 1 **OF** 2

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
1	4960	4960		NDIX-RECORD	Index data record containing 310 four word keys.
1	16	16		NDIX-KEYREC	Four word key which occurs 310 times
1	14	14		NDIX-KEY	Key for data not including bulk pointer
1	13	13		NDIX-KEY-TO-YEAR	Site-pollutant-year key
1	8	8		NDIX-SITE-DESC	SITE KEY THROUGH PROJECT
1	6	6		NDIX-SITE-KEY	STATE KEY THROUGH SITE
1	2	2	X(2)	NDIX-STATE	STATE
3	4	2	9(4) COMP	NDIX-AREA	AREA
5	6	2	9(3) COMP	NDIX-SITE	SITE
7	7	1	X	NDIX-AGY	AGENCY
8	8	1	9(2) COMP	NDIX-PRJ	PROJECT
9	12	4		NDIX-POLL-KEY	PARAMETER KEY THROUGH INTERVAL
9	11	3		NDIX-POLL-ME	POLLUTANT-METHOD
9	10	2	9(5) COMP	NDIX-POLL	POLLUTANT
11	11	1	9(2) COMP	NDIX-METH	METHOD
12	12	1	X	NDIX-INT	INTERVAL
13	13	1	9(2) COMP	NDIX-YEAR	YEAR
14	14	1	9(2) COMP	NDIX-UNITS	REPORTING UNITS
15	16	2	9(5) COMP	NDIX-BLK-PTR	Pointer to NADB-ND-BULK file (data values file)

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7 **CHAPTER** 2 **SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE** 3/1/79 Update III-2 **PAGE** 14
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-ND-INDX	

FILE NAME/DESCRIPTION NADB-ND-INDX	**RECORD NAME/DESCRIPTION** NDIX-HEADER	
APPLICATION SAROAD	**DATE**	**PAGE** 2 **OF** 2

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
1	16	16		NDIX-HEADER	Header Record for index file which redefines first four words of NDIX-RECORD
1	4	4	9(8) COMP	NDIX-LST-IXRC	Pointer for last record of NADB-ND-INDX file
5	8	4	9(8) COMP	NDIX-LST-IXKY	Number of actual keys in last record of index file (≦310)
9	12	4	9(8) COMP	NDIX-LST-BULK	Pointer for last record of NADB-ND-BULK file
12	16	4		NDIX-DATE	Date of file CREATION
			9(2) DISP-1	NDIX-MON	Month ffle created
			9(2) DISP-1	NDIX-DAY	Day file created
			9(2) DISP-1	NDIX-DYR	Year file created

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE**		**PAGE** 15
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-ND-BULK	3/1/79 Update III-2		

FILE DESCRIPTION AND USE

NADB-ND-BULK contains the current data values for the SAROAD continuous data. The records are fixed length records containing 8928 values (24 hourly values/day, 31 days/month, 12 months/year). Each data value and its corresponding decimal point indicator is stored in a half word. Missing or non-existent data values are stored as all 1 bits. The checksum is computed by summing the 4464 words allocated to values.

NADB-ND-BULK is directly accessed via NADB-ND-INDX keys and pointers. These two files are used by SAROAD reporting programs requiring access to the raw data.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ____

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☒ DIRECT
- ☐ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ____

☐ OTHER ____

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC

☐ NO PROC NAME NADB-ND-BULK

BLOCKING

☐ BLOCKED: 17876 ☒ CHARACTERS ☐ RECORDS PER BLOCK

☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 17876 CHARACTERS

☐ VARIABLE LENGTH: ____ THROUGH ____ CHARACTERS

KEY (IF APPLICABLE)

NONE CHARACTERS LONG

CONTENT: File is accessed via pointers in NADB-ND-INDX which have a key = state-area-site-agency-project-pollutant-method-interval-year-units.

RECORDING MODE

☐ INTERNAL ☐ F ☐ AN

☒ COMPACT ☐ U ☐ AN

☐ CFH ☐ V ☐ AN

☐ ____

FILE AVAILABILITY

☐ RESTRICTED

☒ PERMANENT

☐ TEMPORARY

☐ ____

STORAGE MEDIUM

☒ DISK

☐ TAPE ☒ LABELED ☐ UNLABELED

☐ CARDS

☐ ____

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NAD29/D (PROGRAM NAME)

FILE SIZE: 3 disks AS OF 7/76

UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)

ANTICIPATED GROWTH: ____ ☐ RECORD ☐ TRACKS ☐ ____ PER ____

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL

MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK

LOCATED AT: NCC (2 copies)

FILE NAME: NADB-ND-CBXP

FREQUENCY: 2 weeks

NUMBER OF GENERATIONS KEPT: 4

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
	CHAPTER	File Description			
NATIONAL AIR DATA BRANCH	**SUBJECT**	SAROAD	**DATE**		**PAGE** 16
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER**	NADB	3/1/79		
	FILE NAME	NADB-ND -BULK	Update III-2		

FILE NAME/DESCRIPTION NADB-ND-BULK

RECORD NAME/DESCRIPTION NDBK-RECORD

APPLICATION SAROAD

DATE

PAGE 1 **OF** 1

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
1	17876	17876		NDBK-RECORD	Bulk record containing 1 year's data (8928 values)
1	1488	1488		NDBK-MONTH	Month's worth of data values occurs 12 times.
1	48	48		NDBK-DAY	Day's worth of data values occurs 31 times.
1	2	2		NDBK-HOUR*	Hour's worth of data occurs 24 times.
			1 (3)	NDBK-DP	Decimal point indicator
			S1 (15)	NDBK-VAL	Data value
17857	17860	4	9(8) COMP	NDBK-CHKSUM	Checksum
17861	17876	16	X(16)	NDBK-KEY	Copy of INDX key and pointer

Each half word contains the decimal point indicator, and the data value. The first three (3) bits are the indicator, and the last 15 bits are the data value.

To move:

1 year	NDBK-RECORD
1 month	NDBK-MONTH(month#)
1 day	NDBK-DAY (month #, day#)
1 value	NDBK-VAL (month #, day #, hour#)

To get floating point representation of the number, move NDBK-VAL to a COMP-1 field, and then multiply rounded the field times 10 to the -(NDBK-DP) power

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 17
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-ND-BULK	Update III-2		

FILE NAME/DESCRIPTION NADB-ND-BULK	**RECORD NAME/DESCRIPTION** NDBK-REDEF1

APPLICATION SAROAD	**DATE**	**PAGE** 1 **OF** 1

RECORD POSITION			**DATA ITEM**		
FIRST	**LAST**	**LENGTH**	**PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
1	17876	17876		NDBK-REDEF1	Re-define the bulk record for the purpose of computing the checksum value.
1	4	4	9(10) COMP	NDBK-FW (1)	OCCURS 4464 TIMES. Full word overlay for computing the checksum value.
5	8	4	9(10) COMP	NDBK-FW (2)	
.	.	.	.	.	
.	.	.	.	.	
.	.	.	.	.	
17853	17856	4	9(10) COMP	NDBK-FW (4464)	
17857	17876	20	X (20)	FILLER	Not used for checksumming process.

FILE DESCRIPTION AND USE

NADB-HD-INDX contains the unique keys and pointers for the historical SAROAD continuous data values stored in the NADB-HD-BULK file. The key is state-area-site-agency-project-pollutant-method-interval-year-units. With each key is a pointer which is the relative block address for the associated value record in NADB-HD-BULK. There are 310 four word keys in each physical record in NADB-HD-INDX. NADB-HD-INDX is used by SAROAD report program to access historical continuous raw data.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ____

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☒ DIRECT
- ☐ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ____

☐ OTHER ____

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC

☐ NO PROC NAME NADB-HD-INDX

BLOCKING

☐ BLOCKED: 4960 ☒ CHARACTERS ☐ RECORDS PER BLOCK

☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 4960 CHARACTERS

☐ VARIABLE LENGTH: ____ THROUGH ____ CHARACTERS

KEY (IF APPLICABLE)

NONE CHARACTERS LONG *

CONTENT: File is accessed VIA a pointer which is a record number (relative number within the file).

RECORDING MODE

☐ INTERNAL ☐ F ☐ AN

☒ COMPACT ☐ U ☐ AN

☐ CFH ☐ V ☐ AN

☐ ____

FILE AVAILABILITY

☐ RESTRICTED

☒ PERMANENT

☐ TEMPORARY

☐ ____

STORAGE MEDIUM

☒ DISK

☐ TAPE ☒ LABELED ☐ UNLABELED

☐ CARDS

☐ ____

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA029/D (PROGRAM NAME)

FILE SIZE: ____ AS OF ____

UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)

ANTICIPATED GROWTH: ____ ☐ RECORD ☐ TRACKS ☐ ____ PER ____

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL

MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK

LOCATED AT: NCC (2 copies)

FILE NAME: NADB-HD-CBXP

FREQUENCY: 2 weeks

NUMBER OF GENERATIONS KEPT: 4

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE**		**PAGE** 19
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-HD-INDX	3/1/79 Update III-2		

FILE NAME/DESCRIPTION	NADB-HD-INDX	**RECORD NAME/DESCRIPTION**	HDIX-RECORD
APPLICATION SAROAD	**DATE**	**PAGE** 1 **OF** 2	

RECORD POSITION		**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
FIRST	**LAST**				
1	4960	4960		HDIX-RECORD	Index data record containing 310 four word keys.
1	16	16		HDIX-KEYREC	Four word key which occurs 310 times.
1	14	14		HDIX-KEY	Key for data not including bulk pointer
1	13	13		HDIX-KEY-TO-YEAR	Site-pollutant-year key
1	8	8		HDIX-SITE-DESC	SITE KEY THROUGH PROJECT
1	6	6		HDIX-SITE-KEY	STATE KEY THROUGH SITE
1	2	2	X(2)	HDIX-STATE	STATE
3	4	2	9(4)COMP	HDIX-AREA	AREA
5	6	2	9(3)COMP	HDIX-SITE	SITE
7	7	1	X	HDIX-AGY	AGENCY
8	8	1	9(2)COMP	HDIX-PRJ	PROJECT
9	12	4		HDIX-POLL-KEY	PARAMETER KEY THROUGH INTERVAL
9	11	3		HDIX-POLL-ME	POLLUTANT-METHOD
9	10	2	9(5)COMP	HDIX-POLL	POLLUTANT
11	11	1	9(2)COMP	HDIX-METH	METHOD
12	12	1	X	HDIX-INT	INTERVAL
13	13	1	9(2)COMP	HDIX-YEAR	YEAR
14	14	1	9(2)COMP	HDIX-UNITS	REPORTING UNITS
15	16	2	9(5)COMP	HDIX-BLK-PTR	Pointer to NADB-HD-BULK file (data values file)

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE**		**PAGE** 20
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-HD-INDX	3/1/79 Update III-2		

FILE NAME/DESCRIPTION NADB-HD-INDX	**RECORD NAME/DESCRIPTION** HDIX-HEADER

APPLICATION SAROAD	**DATE**	**PAGE** 2 **OF** 2

RECORD POSITION					
FIRST	**LAST**	**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
1	16	16		HDIX-HEADER	Header Record for index file which redefines first four words of NDIX-RECORD
1	4	4	9(8) COMP	HDIX-LST-IXRC	Pointer for last record of NADB-HD-INDX file
5	8	4	9(8) COMP	HDIX-LST-IXKY	Number of actual keys in last record of index file (≤310)
9	12	4	9(8) COMP	HDIX-LST-BULK	Pointer for last record of NADB-HD-BULK file
12	16	4		HDIX-DATE	Date of file CREATION
			9(2) DISP-1	HDIX-MON	Month file created
			9(2) DISP-1	HDIX-DAY	Day file created
			9(2) DISP-1	HDIX-DYR	Year file created

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE**		**PAGE** 21
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-HD-BULK	3/1/79 Update III-2		

FILE DESCRIPTION AND USE

NADB-HD-BULK contains the historical data values for the SAROAD continuous data. The records are fixed length records containing 8928 values (24 hourly values/day, 31 days/month, 12 months/year). Each data value and its corresponding decimal point indicator is stored in a half word. Missing or non-existent data values are stored as all 1 bits. The checksum is computed by summing the 4464 words allocated to values.

NADB-HD-BULK is directly accessed via NADB-HD-INDX keys and pointers. These two files are used by SAROAD reporting programs requiring access to the raw data.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ______

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☒ DIRECT
- ☐ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ______

☐ OTHER ______

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC

☐ NO PROC NAME NADB-HD-BULK

BLOCKING

☐ BLOCKED: 17876 ☒ CHARACTERS ☐ RECORDS PER BLOCK

☒ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 17876 CHARACTERS

☐ VARIABLE LENGTH: ______ THROUGH ______ CHARACTERS

KEY (IF APPLICABLE)

NONE CHARACTERS LONG *

CONTENT: File is accessed via pointers in NADB-HD-INDX which have a key = state-area-site-agency-project-pollutant-method-interval-year-units.

RECORDING MODE

☐ INTERNAL ☐ F ☐ AN

☒ COMPACT ☐ U ☐ AN

☐ CFH ☐ V ☐ AN

☐ ______

FILE AVAILABILITY

☐ RESTRICTED

☒ PERMANENT

☐ TEMPORARY

☐ ______

STORAGE MEDIUM

☒ DISK

☐ TAPE ☒ LABELED ☐ UNLABELED

☐ CARDS

☐ ______

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA029/D (PROGRAM NAME)

FILE SIZE: ______ AS OF ______

UPDATE FREQUENCY: 2 weeks (TIME INTERVAL)

ANTICIPATED GROWTH: ______ ☐ RECORD ☐ TRACKS ☐ ______ PER ______

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL

MEDIUM: ☐ CARDS ☐ TAPE ☐ DISK

LOCATED AT: NCC (2 copies)

FILE NAME: NADB-HD-CBXP

FREQUENCY: 2 weeks

NUMBER OF GENERATIONS KEPT: 4

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER**	File Description	**DATE**		**PAGE** 22
	SUBJECT	SAROAD	3/1/79		
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER**	NADB			
	FILE NAME	NADB-HD-BULK	Update III-2		

FILE NAME/DESCRIPTION NADB-HD-BULK	**RECORD NAME/DESCRIPTION** HDBK-RECORD
APPLICATION SAROAD	**DATE** **PAGE** 1 **OF** 1

RECORD POSITION FIRST	LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
1	17876	17876		HDBK-RECORD	Bulk record containing 1 year's data (8928 values)
1	1488	1488		HDBK-MONTH	Month's worth of data values occurs 12 times.
1	48	48		HDBK-DAY	Day's worth of data values occurs 31 times.
1	2	2		HDBK-HOUR*	Hour's worth of data occurs 24 times
			1 (3)	HDBK-DP	Decimal point indicator
			S1 (15)	HDBK-VAL	Data value
17857	17860	4	9(8) COMP	HDBK-CHKSUM	Checksum
17861	17876	16	X(16)	HDBK-KEY	Copy of INDX key and pointer

Each half word contains the decimal point indicator, and the data value. The first three (3) bits are the indicator, and the last 15 bits are the data value.

To move:

1 year	HDBK-RECORD
1 month	HDBK-MONTH(month#)
1 day	HDBK-DAY (month #, day #)
1 value	HDBK-VAL (month #, day #, hour #)

To get floating point representation of the number, move HDBK-VAL to a COMP-1 field, and then multiply rounded the field times 10 to the -(HDBK-DP) power

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 23
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-HD-BULK	Update III-2		

FILE NAME/DESCRIPTION NADB-HD-BULK	**RECORD NAME/DESCRIPTION** HDBK-REDEF1

APPLICATION SAROAD	**DATE**	**PAGE** 1 **OF** 1

RECORD POSITION			**DATA ITEM**		
FIRST	**LAST**	**LENGTH**	**PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
1	17876	17876		HDBK-REDEF1	Re-define the bulk record for the purpose of computing the checksum value.
1	4	4	9(10) COMP	HDBK-FW (1)	OCCURS 4464 TIMES. Full word overlay for computing the checksum value.
5	8	4	9(10) COMP	HDBK-FW (2)	
.	.	.	.	.	
.	.	.	.	.	
.	.	.	.	.	
17853	17856	4	9(10) COMP	HDBK-FW (4464)	
17857	17876	20	X (20)	FILLER	Not used for checksumming process.

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE**		**PAGE** 24
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-GT-DISK	3/1/79 Update III-2		

FILE DESCRIPTION AND USE

NADB-GT-DISK is the file which contains all SAROAD non-continuous (sampling interval 24 hours or greater) air quality data. The file contains variable length records with a 28 character key (state-area-site-agency-project-pollutant-method-interval-year-month eq-day eq-unit). Each record contains a variable number of 7-character data fields which includes the actual data value sampled.

USE: NADB-GT-DISK is used for data retrievals applicable to non-continuous sampling intervals.

FILE TYPE

☐ SDF
☐ PRINT FILE
☐ PUNCH FILE
☐ ____________
☒ ASCII COBOL
☒ SEQUENTIAL
☐ DIRECT
☐ INDEXED - SEQUENTIAL
☐ FORTRAN
☐ FORMATTED
☐ UNFORMATTED
☐ ____________
☐ OTHER ____________

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB*NADB-DESC
☐ NO PROC NAME NADB-GT-DISK

BLOCKING

☒ BLOCKED: 3520 ☒ CHARACTERS ☐ RECORDS PER BLOCK
☐ UNBLOCKED

RECORD SIZE

☐ FIXED LENGTH: ________ CHARACTERS
☒ VARIABLE LENGTH:
37 THROUGH 401 CHARACTERS

KEY (IF APPLICABLE)

28 CHARACTERS LONG
CONTENT: state/area/site/agency/project/pollutant/method/interval/year/month eq/day eq/unit

RECORDING MODE

☐ INTERNAL ☐ F ☐ AN
☒ COMPACT ☐ U ☐ AN
☐ CFH ☐ V ☐ AN
☐ ____________

FILE AVAILABILITY

☐ RESTRICTED
☒ PERMANENT
☐ TEMPORARY
☐ ____________

STORAGE MEDIUM

☒ DISK
☐ TAPE ☒ LABELED
☐ CARDS ☐ UNLABELED
☐ ____________

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA058 (PROGRAM NAME)
FILE SIZE: 751528 records AS OF 1 April 76
UPDATE FREQUENCY: ____________ (TIME INTERVAL)
ANTICIPATED GROWTH: ________ ☐ RECORD ☐ TRACKS ☐ ________ PER ________

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL
MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK
LOCATED AT: EPA-RTP
FILE NAME: NADB-GT-TAPE
FREQUENCY: 2 weeks
NUMBER OF GENERATIONS KEPT: 4

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Description	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 25
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-GT-DISK	Update III-2		

FILE NAME/DESCRIPTION NADB-GT-DISK	**RECORD NAME/DESCRIPTION** GTD-RECORD	
APPLICATION SAROAD	**DATE** 24 MARCH 76	**PAGE** 1 **OF** 4

RECORD POSITION					
FIRST	**LAST**	**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
1	37 to 401	37 to 401		GTD-RECORD	>24 hour data recor
1	28	28		GTD-KEY	Key for >24 hour data record
1	26	26		GTD-KEY-UNITS	Key without units code
1	24	24		GTD-KEY-MO	Key through month code
1	12	12		GTD-SITE-DESC	Key with state through project
1	9	9		GTD-SITE-KEY	Key with state through site
1	2	2	XX	GTD-STATE	State
3	6	4	XXXX	GTD-AREA	Area
7	9	3	XXX	GTD-SITE	Site
10	10	1	X	GTD-AGY	Agency
11	12	2	XX	GTD-PRJ	Project
13	20	8		GTD-POLL-KEY	Parameter key through interval
13	19	7		GTD-POLL-ME	Pollutant-method
13	17	5	X(5)	GTD-POLL	Pollutant

FILE NAME/DESCRIPTION NADB-GT-DISK	**RECORD NAME/DESCRIPTION** GTD-RECORD

APPLICATION SAROAD	**DATE** 24 March 76	**PAGE** 2 **OF** 4

RECORD POSITION		LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
FIRST	LAST				
18	19	2	XX	GTD-METH	Method
20	20	1	X	GTD-INT	Interval
21	22	2	XX	GTD-YEAR	Year
23	24	2	XX	GTD-MON-EQ	Month equivalent (*)
23	24			GTD-COMPOSITE	Special for composites
23	23	1	X	GTD-C-INTVL	Composite sampling interval
24	24	1	X	GTD-C-PER	Composite period code
25	26	2	XX	GTD-DAY-EQ	Day equivalent (*)
27	28	2	XX	GTD-UNITS	Units (reporting)
29	29	1	X	FILLER	Not used
30	30	1	99 COMP	GTD-VAL-CNT	Count of number of values present (*)
31	37	7		GTD-DATA	Entry for first data value for this record
31	32	2	99	GTD-PER	See (*)
33	37	5		GTD-MOVE	Value and NBR SMP field

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Description **SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 27
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-GT-DISK	Update III-2		

FILE NAME/DESCRIPTION NADB-GT-DISK	**RECORD NAME/DESCRIPTION** GTD-RECORD

APPLICATION SAROAD	**DATE** 24 March 76	**PAGE** 3 **OF** 4

RECORD POSITION FIRST	LAST	**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
33	36	4	X(4)	GTD-VALUE	See (*)
37	37	1	99 COMP	GTD-NBR-SMP	See (*)
38	44	7		Same as 31-37 for value 2	
⋮	⋮	⋮		⋮	
395	410	7		Same as 31-37 for value 53	

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Descriptions **SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 28
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-STE-INX	Update III-2		

FILE DESCRIPTION AND USE Sampling Site Description data from SAROAD "Site Identification" forms. Contains codes for state, area, site, agency, project, AQCR, county, EPA-region and SMSA. Contains city population, UTM and grid coordinates, latitude and longitude, supporting agency, site address, station type, AQCR population, elevation above ground and mean sea level time zone and comments.

USES: Used in the interactive system.

FILE TYPE

☐ SDF
  ☐ PRINT FILE
  ☐ PUNCH FILE
  ☐ ______
☒ ASCII COBOL
  ☐ SEQUENTIAL
  ☐ DIRECT
  ☒ INDEXED - SEQUENTIAL
☐ FORTRAN
  ☐ FORMATTED
  ☐ UNFORMATTED
  ☐ ______
☐ OTHER ______

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC
☐ NO PROC NAME NADBSITEISAM

BLOCKING

☒ BLOCKED: 9 ☐ CHARACTERS ☒ RECORDS PER BLOCK
☐ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 421 CHARACTERS
☐ VARIABLE LENGTH: ______ THROUGH ______ CHARACTERS

KEY (IF APPLICABLE)

12 CHARACTERS LONG
CONTENT: STATE,AREA,SITE,AGENCY PROJECT

RECORDING MODE

☒ INTERNAL ☐ F ☐ AN
☐ COMPACT ☐ U ☐ AN
☐ CFH ☐ V ☐ AN
☐ ______

FILE AVAILABILITY

☐ RESTRICTED
☒ PERMANENT
☐ TEMPORARY
☐ ______

STORAGE MEDIUM

☒ DISK
☐ TAPE ☒ LABELED
☐ UNLABELED
☐ CARDS
☐ Standard

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA061 (PROGRAM NAME)
FILE SIZE: ______ AS OF ______
UPDATE FREQUENCY: Two weeks (TIME INTERVAL)
ANTICIPATED GROWTH: ______ ☐ RECORD ☐ TRACKS ☐ ______ PER ______

FILE BACKUP

TYPE: ☐ NONE ☒ SYSTEM ☐ SPECIAL
MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK
LOCATED AT: ______
FILE NAME: NADB-STE-T
FREQUENCY: ______
NUMBER OF GENERATIONS KEPT: ______

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Descriptions **SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 29
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-STE-INX	Update III-2		

FILE NAME/DESCRIPTION NADB-STE-INX	**RECORD NAME/DESCRIPTION** SITE-REC	
APPLICATION SAROAD	**DATE** January 19, 1978	**PAGE** 1 **OF** 3

RECORD POSITION FIRST	LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
1	421	421		SITE-REC	Site Record *
1	1	1	x	FILLER	Unused
2	13	12		SR-KEY	Identification Key
2	10	9		SR-CODE	Code
2	3	2	x(2)	SR-STATE	State Code
4	7	4	X(4)	SR-AREA	Area Code
8	10	3	x(3)	SR-SITE	Site Code
11	13	3		SA-AP	Agency/Project
11	11	1	x	SR-AGENCY	Agency Code
12	13	2	x(2)	SR-PROJECT	Project Code
14	18	5		PARTICULATE	Pollutant Type
14	14	1	x	P-SITE-TYPE	Site Type Code
15	15	1	x	FILLER	Blank
16	18	3	x(3)	P-EQUIP-CODE	Equipment Code
19	23	5		SO_2	Pollutant Type
19	19	1	x	SO_2-SITE-TYPE	Site Type Code
20	20	1	x	FILLER	Blank
21	23	3	x(3)	SO_2-EQUIP-CODE	Equipment Code
24	28	5		CO	Pollutant Type
24	24	1	x	CO-SITE-TYPE	Site Type
25	25	1	x	FILLER	Blank
26	28	3	x(3)	CO-EQUIP-CODE	Equipment Code
29	33	5		OX	Pollutant Type
29	29	1	x	OX-SITE-TYPE	Site Type
30	30	1	x	FILLER	Blank
31	33	3	x(3)	OX-EQUIP-CODE	Equipment Code
34	38	5		NO_2	Pollutant Type
34	34	1	x	NO_2-SITE-TYPE	Site Type
35	35	1	x	FILLER	Blank
36	38	3	x(3)	NO_2-EQUIP-CODE	Equipment Code
39	43	5		HC	Pollutant Type
39	39	1	x	HC-SITE-TYPE	Site Type
40	40	1	x	FILLER	Blank
41	43	3	x(3)	HC-EQUIP-CODE	Equipment Code
44	48	5		Pb	Pollutant Type

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Descriptions **SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 30
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-STE-INX	Update III-2		

FILE NAME/DESCRIPTION NADB-STE-INX	**RECORD NAME/DESCRIPTION** SITE-REC	
APPLICATION SAROAD	**DATE** January 19, 1978	**PAGE** 2 **OF** 3

RECORD POSITION FIRST	RECORD POSITION LAST	LENGTH	DATA ITEM PICTURE	DATA ITEM NAME	DESCRIPTION
44	44	1	x	PB-SITE-TYPE	Site Type
45	45	1	x	FILLER	Blank
46	48	3	x(3)	PB-EQUIP-CODE	Equipment Code
49	51	3	x(3)	FILLER	Blank
52	59	8	9(8)	SR-CITY-POPL	City Population
60	61	2	x(2)	SR-UTM-ZONE	UTM Zone
62	69	8	x(8)	SR-UTM-EAST	UTM Easting
70	76	7	x(7)	SR-UTM-NORTH	UTM Northing
77	84	8		SR-LONGITUDE	Longitude
77	77	1	x	SR-LON-DIR	Longitude Direction
78	80	3	x(3)	SR-LON-DEG	Longitude Degrees
81	82	2	x(2)	SR-LON-MIN	Longitude Minutes
83	84	2	x(2)	SR-LON-SEC	Longitude Seconds
85	91	7		SR-LATITUDE	Latitude
85	85	1	x	SR-LAT-DIR	Latitude Direction
86	87	2	x(2)	SR-LAT-DEG	Latitude Degrees
88	89	2	x(2)	SR-LAT-MIN	Latitude Minutes
90	91	2	x(2)	SR-LAT-SEC	Latitude Seconds
92	92	1	x	SR-REGION	Region
93	96	4	x(4)	SR-SMSA-NBR	SMSA Number
97	157	61	x(61)	SR-SUPP-AGCY	Supporting Agency
158	223	66	x(66)	SR-COMMENT-1	Comment
224	289	66	x(66)	SR-COMMENT-2	Comment
290	314	25	x(25)	SR-ABV-ADDR	Site Abbreviation
315	355	41	x(41)	SR-ADDR	Site Address
356	357	2	x(2)	SR-STA-TYP	Station Type
358	361	4	x(4)	SR-CNTY-NBR	County Number
362	364	3	x(3)	SR-AQCR-NBR	AQCR Number
365	372	8	9(8)	SR-AQCR-POPL	AQCR Population
373	375	3	x(3)	SR-ELEV-ABOVE-G	Elevation Above Ground
376	379	4	x(4)	SR-ELEV-ABOVE-MSL	Elev Above Sea Level
380	381	2	x(2)	SR-TIME-ZONE	Time Zone of Sampling
382	415	34	x(34)	FILLER	Unused
416	421	6	x(6)	DATE-UPDATED	Date Record was Updated

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Descriptions	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 31
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-STE-INX	Update III-2		

FILE NAME/DESCRIPTION NADB-STE-INX	**RECORD NAME/DESCRIPTION** STE-REC

APPLICATION SAROAD	**DATE** January 19, 1978	**PAGE** 3 **OF** 3

RECORD POSITION					
FIRST	**LAST**	**LENGTH**	**DATA ITEM PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
416	417	2	x(2)	MONTH	
418	419	2	x(2)	DAY	
420	421	2	x(2)	YEAR	

* Dummy records for each state are stored to allow positioning of the file at the beginning of a state. The key is the state code followed by 10 blanks.

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals **CHAPTER** File Descriptions	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**SUBJECT** SAROAD	**DATE**		**PAGE** 32
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-PARMFL	3/1/79 Update III-2		

FILE DESCRIPTION AND USE

Contains the monitored air pollutant and meteorlogical parameters their methods of collection and analysis and associated codes: name of parameter, name of collection method, name of analysis method, time-interval code, approximation to the minimum detectable value, reporting decimal point, standard units code, conversion factor for units.

USE: Input to all SAROAD reporting programs other than publication programs NA250, NA217, and NA218.

Is used for Summary and Frequency File Creation.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ______

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☐ DIRECT
- ☒ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐ ______

☐ OTHER ______

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC

☐ NO PROC NAME NADBPARAISM

BLOCKING

☒ BLOCKED: 30 ☐ CHARACTERS ☒ RECORDS PER BLOCK

☐ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 94 CHARACTERS

☐ VARIABLE LENGTH: ______ THROUGH ______ CHARACTERS

KEY (IF APPLICABLE)

10 CHARACTERS LONG

CONTENT: POLLUTANT, METHOD, UNITS AND INTERVAL

RECORDING MODE

☒ INTERNAL ☐ F ☐ AN

☐ COMPACT ☐ U ☐ AN

☐ CFH ☐ V ☐ AN

☐ ______

FILE AVAILABILITY

☐ RESTRICTED

☒ PERMANENT

☐ TEMPORARY

☐ ______

STORAGE MEDIUM

☒ DISK

☐ TAPE ☒ LABELED ☐ UNLABELED

☐ CARDS

☐ Standard

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA031B (PROGRAM NAME)

FILE SIZE: 1 POS AS OF 5/2[illegible]/75

UPDATE FREQUENCY: As needed (TIME INTERVAL)

ANTICIPATED GROWTH: Minimum ☐ RECORD ☐ TRACKS ☐ ______ PER ______

FILE BACKUP

TYPE: ☐ NONE ☐ SYSTEM ☒ SPECIAL

MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK

LOCATED AT: ______

FILE NAME: NADB-PARM-T

FREQUENCY: As needed

NUMBER OF GENERATIONS KEPT: 2

ENVIRONMENTAL PROTECTION AGENCY	**SECTION** User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER** File Descriptions **SUBJECT** SAROAD	**DATE** 3/1/79		**PAGE** 33
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**QUALIFIER** NADB **FILE NAME** NADB-PARMFL	Update III-2		

FILE NAME/DESCRIPTION NADB-PARMFL	**RECORD NAME/DESCRIPTION** PARAMETER REC

APPLICATION SAROAD	**DATE** June 5, 1975	**PAGE** 1 **OF** 1

RECORD POSITION			DATA ITEM		
FIRST	**LAST**	**LENGTH**	**PICTURE**	**DATA ITEM NAME**	**DESCRIPTION**
1	94	94		PARAMETER-REC	Record
1	10	10		IR-KEY	Identification Key
1	5	5	X(5)	IR-POLT-COD	Pollutant Code
6	7	2	X(2)	IR-METH	Method
8	9	2	X(2)	IR-UNITS	Units
10	10	1	X	IR-INTVL	Interval
11	14	4	Comp-1	IR-CONV-FAC	Conversion Factor
15	18	4	Comp-1	IR-UR-MIN-DETC	Urban Minimum Detectable
19	22	4	Comp-1	IR-NU-MIN-DETC	Non-Urban Minimum Detectable
23	23	1	9	IR-UR-DP	Urban Decimal Point
24	24	1	9	IR-NU-DP	Non-Urban Decimal Point
25	26	2	X(2)	IR-STD-UTS	Standard Units
27	36	10	X(10)	IR-POL-NME-1	Pollutant Name Part-1
37	46	10	X(10)	IR-POL-NME-2	Pollutant Name Part-2
47	60	14	X(14)	IR-MET-COL	Method of Collection
61	94	34	X(34)	IR-MET-ANAL	Method Analysis

ENVIRONMENTAL PROTECTION AGENCY	**SECTION**	User Generated Retrievals	**SECTION** 7	**CHAPTER** 2	**SUBJECT** 3
NATIONAL AIR DATA BRANCH	**CHAPTER**	File Description	**DATE**		**PAGE**
VOLUME III. AEROS SUMMARY AND RETRIEVAL MANUAL	**SUBJECT**	SARAOD	3/1/79		34
	QUALIFIER	NADB	Update III-2		
	FILE NAME	NADB-POLTFL			

FILE DESCRIPTION AND USE

File contains pollutant code and the name of the associated pollutant.

USES: Accessed by five-digit pollutant code. Is used by standard retrieval programs and in editing routines also by programs producing a listing.

FILE TYPE

☐ SDF
- ☐ PRINT FILE
- ☐ PUNCH FILE
- ☐ ________

☒ ASCII COBOL
- ☐ SEQUENTIAL
- ☐ DIRECT
- ☒ INDEXED - SEQUENTIAL

☐ FORTRAN
- ☐ FORMATTED
- ☐ UNFORMATTED
- ☐

☐ OTHER ________

CATALOGUED FILE DESCRIPTION

☒ YES: FILE NAME NADB-DESC

☐ NO PROC NAME NADBPOLTISAM

BLOCKING

☒ BLOCKED: 10 ☐ CHARACTERS ☒ RECORDS PER BLOCK

☐ UNBLOCKED

RECORD SIZE

☒ FIXED LENGTH: 50 CHARACTERS

☐ VARIABLE LENGTH: ____ THROUGH ____ CHARACTERS

KEY (IF APPLICABLE)

5 CHARACTERS LONG

CONTENT: POLLUTANT CODE

RECORDING MODE

☒ INTERNAL ☐ F ☐ AN

☐ COMPACT ☐ U ☐ AN

☐ CFH ☐ V ☐ AN

☐ ________

FILE AVAILABILITY

☐ RESTRICTED

☒ PERMANENT

☐ TEMPORARY

☐ ________

STORAGE MEDIUM

☒ DISK

☐ TAPE ☒ LABELED

☐ CARDS ☐ UNLABELED

☐ ________

FILE CREATION AND MAINTENANCE

FILE CREATED OR UPDATED BY: NA032 (PROGRAM NAME)

FILE SIZE: 1 POS AS OF 09/4/75

UPDATE FREQUENCY: Irregular when new pollutant cataloged (TIME INTERVAL)

ANTICIPATED GROWTH: ________ ☐ RECORD ☐ TRACKS ☐ ________ PER ________

FILE BACKUP

TYPE: ☐ NONE ☒ SYSTEM ☒ SPECIAL

MEDIUM: ☐ CARDS ☒ TAPE ☐ DISK

LOCATED AT: ________

FILE NAME: NADB-POLT-T

FREQUENCY: ________

NUMBER OF GENERATIONS KEPT: 2

FILE NAME/DESCRIPTION NADB-POLTFL		**RECORD NAME/DESCRIPTION** POLT-REC
APPLICATION SAROAD	**DATE** June 5, 1975	**PAGE** 1 **OF** 1

RECORD POSITION			DATA ITEM		
FIRST	LAST	LENGTH	PICTURE	DATA ITEM NAME	DESCRIPTION
1	50	50		POLT-REC	Record
1	1	1	x	PF-DELETE	Space
2	6	5		PF-KEY	Pollutant key
2	6	5	x(5)	PF-POLT-COD	Pollutant Code
7	50	44	x(44)	PF-POLT-NME	Pollutant Name